

## SCS ENGINEERS

May 18, 2018  
File No. 25216207.00

Mr. Michael Schmoller  
Wisconsin Department of Natural Resources  
3911 Fish Hatchery Road  
Madison, WI 53711

Subject: Material Management Plan  
Former Garver Feed Mill Property  
3244 Atwood Avenue, Madison, Wisconsin  
BRRTS #03-13-252719

Dear Mr. Schmoller:

SCS Engineers (SCS) is submitting for your review the enclosed Material Management Plan (MMP) for the redevelopment of the former Garver Feed Mill in Madison, Wisconsin. Garver Feed Mill, LLC, is currently renovating the historic former mill building and earth moving activities are expected to start in May 2018. The MMP presents proposed strategies for handling contaminated soil and groundwater while redeveloping the property. The material management approach described in the enclosed document is consistent with the Wisconsin Department of Natural Resources (WDNR) July 11, 2017 response to Garver Feed Mill LLC's technical assistance request dated June 21, 2017, as modified in subsequent email correspondence.

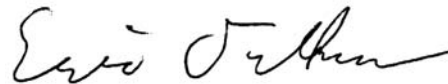
We believe the management options in this MMP will prepare the property for reuse and also provide adequate protection to human health and the environment. Enclosed with this plan are a technical assistance request form (4400-237) for review of this plan (**Appendix A**), a Development at Historic Fill Site or Licensed Landfill Exemption Application (Form 4400- 226, **Appendix B**), and the required review fee of \$700.

If you need any additional information, please contact Eric Oelkers at (608) 216-7341.

Sincerely,



Meghan Blodgett, PG  
Project Hydrogeologist  
**SCS ENGINEERS**



Eric Oelkers, PG  
Senior Project Manager  
**SCS ENGINEERS**

MDB/AJR/EO/MRH

cc: Brynn Bemis, City of Madison  
Bryant Moroder, Garver Feed Mill, LLC.

Enclosure: Material Management Plan

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## Material Management Plan

**Former Garver Feed Mill Property  
3244 Atwood Avenue / 109 & 115  
South Fair Oaks Avenue  
Madison, Wisconsin  
BRRS #03-13-252719**

Prepared for:

### **Madison Engineering Division**

210 Martin Luther King Jr. Blvd., Room 115  
Madison, WI 53703-3342

Prepared by:

### **SCS ENGINEERS**

2830 Dairy Drive  
Madison, Wisconsin 53718-6751  
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**Offices Nationwide**  
[www.scsengineers.com](http://www.scsengineers.com)

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## 1.0 INTRODUCTION

### 1.1 PURPOSE OF THE MATERIAL MANAGEMENT PLAN

SCS Engineers (SCS) has developed this Material Management Plan (MMP) to minimize environmental risks associated with the redevelopment of the former Garver Feed Mill property. This plan describes how contaminated and non-contaminated materials will be managed during redevelopment construction activities. Included as attachments to this plan are a technical assistance request form (4400-237) for review of this plan (**Appendix A**) and a Development at Historic Fill Site or Licensed Landfill Exemption Application (Form 4400- 226, **Appendix B**).

### 1.2 LOCATION AND BACKGROUND INFORMATION

#### 1.2.1 Location and Property Description

The proposed redevelopment is located at 3244 Atwood Avenue and 109 and 115 South Fair Oaks Avenue in Madison, Wisconsin, and is in a mixed residential, recreational, commercial, and light industrial area (**Figure 1**). The site is owned by the City of Madison Parks Department and was purchased from the owners of Garver Feed in 1997 when the feed mill ceased operations. The property includes three parcels (Dane County tax parcel identification numbers 0710-054-0093-3, 0710-054-0096-7, and 0710-054-0098-3). Combined, these parcels include approximately 25.9 acres of land.

The Garver Mill building on the property is currently vacant except for a large room on the far west end of the main building that the City of Madison and/or Olbrich Park use to store equipment and supplies. The free standing Garver Cottage is currently used by Olbrich Botanical Gardens personnel for office space. Some of the land on the property is used by Olbrich Botanical Gardens and/or the City of Madison for storing wood chips, mulch, soil, and other materials.

#### 1.2.2 Site History

The property was developed beginning in the early 1900s for sugar beet processing. The structures on the remaining property were built for the original sugar factory. Subsequent historical uses of the property include several industries, including the Garver Supply Company, which produced livestock feed, the Madison Silo Company, a Frito-Lay research facility, and at least 10 additional businesses, several of which appear to have been involved with trucking and transfer. The businesses on the property were closed by or before the mid-1990s.

Twenty petroleum storage tanks are registered to the property as closed/removed between 1988 and 2000. Three leaking underground storage tank (LUST) sites have been identified on the property. Two of the LUST sites are closed; one LUST site is open. A rail corridor borders the south side of the property, and several rail spurs existed on the property.

## 2.0 SITE INVESTIGATION HISTORY AND RESULTS

The Former Garver Feed Mill site has been the subject of several environmental site investigations over the last 30 years. On behalf of Garver Feed Mill, LLC (the developer), SCS submitted a comprehensive evaluation of the potential impacts residual contamination in the form of a Request for Technical Assistance to the Wisconsin Department of Natural Resources (WDNR) on June 21, 2017. The Request for Technical Assistance included investigation findings through June 2017.

Two additional investigation activities were performed after June 2017: leach testing of polynuclear aromatic hydrocarbons (PAH)-contaminated soil, which confirmed that PAH concentrations less than non-industrial Residual Contaminant Levels (RCLs) do not pose a threat to groundwater quality; and sampling of sub-slab vapor, which confirmed that vapor intrusion into the existing Garver mill building is not likely to be an issue.

Highlights of environmental investigation findings completed remediation activities are summarized below.

### 2.1 HISTORICAL LUST INVESTIGATIONS

Twenty petroleum storage tanks are registered to the property as closed/removed between 1988 and 2000. Three LUST sites have been identified on the property. Two of the LUST sites (03-13-000598 and 03-13-252719) are closed; one LUST site (03-13-252719) is open. The soil and groundwater contamination identified during these investigations was concentrated in the area of the underground storage tanks (USTs), and most of the petroleum contamination was reportedly treated on site with a combination of in-situ groundwater remediation and on-site thermal treatment and replacement of excavated soil. Investigation activities in 2009 identified small areas of residual petroleum contamination in soil and groundwater.

### 2.2 RECENT INVESTIGATIONS

#### 2.2.1 Phase 1 Environmental Site Assessment (ESA)

On behalf of the City of Madison, SCS completed a Phase 1 ESA for the property in 2015. The Phase 1 ESA identified recognized environmental conditions (RECs) at the site related to the likely use of fill material to raise the grade at the site, the former USTs, the property's historical industrial use, and the presence of rail lines on and adjacent to the property.

#### 2.2.2 Soil Borings and Test Pits

Soil borings and test pits were logged and sampled at the site in March and May 2017 to assess the potential for historic fill materials at the property. Sample locations are shown on **Figure 2**. Laboratory analyses included PAHs, which are often encountered in historic fill material, as well as a limited number of analyses for volatile organic compounds (VOCs) and metals. The results of soil boring and test pit sampling and analysis were submitted to the WDNR with the June 21, 2017 Request for Technical Assistance.

### 2.2.3 Synthetic Precipitation Leaching Procedure (SPLP) Testing

SCS collected three soil samples for SPLP on August 11, 2017, at the same depths and locations where previous soil samples showed total PAH concentrations greater than one or more individual RCLs but less than the cumulative PAH RCL for non-industrial direct contact. The concentration of chrysene in the original samples exceeded the groundwater pathway RCL. None of the samples contained detectable concentrations of PAHs in the SPLP extract. These SPLP testing results were documented in an email to Michael Schmoller with the WDNR dated August 29, 2017.

### 2.2.4 Sub-Slab Vapor Testing

SCS collected sub-slab vapor samples at four locations within the existing Garver Feed Mill building on July 25, 2017. Laboratory analysis of the vapor samples showed that VOCs in the soil vapor beneath the building do not exceed WDNR sub-slab vapor risk screening levels (VRSLs). SCS confirmed with Michael Schmoller with the WDNR in a telephone conversation on August 7, 2017, that the WDNR would not require further action with regard to sub-slab vapor. SCS formally documented the sampling procedure, results, and WDNR feedback in a letter to Bryant Moroder (redevelopment project manager) dated August 21, 2017.

## 2.3 RESIDUAL CONTAMINATION

### 2.3.1 Fill Soils

Non-native fill soils were encountered in the recent soil borings and test pits from the ground surface to depths ranging from 3 to 12 feet below ground surface (bgs). The fill soils contain varying amounts of other materials; including coal combustion residue (CCR) (e.g. cinders), bricks, asphalt, and concrete.

The investigation results indicate that fill soils across most of the site are contaminated with varying concentrations of PAHs. PAH results for soil are summarized in **Table 1**. Soil samples with PAH concentrations that do not exceed non-industrial direct contact RCLs based on cumulative risk criteria for carcinogenic PAHs and also do not exceed groundwater pathway RCL values are shaded green in the table. Samples that do not exceed non-industrial direct contact RCLs based on cumulative risk criteria for carcinogenic PAHs, but do exceed the default groundwater pathway RCL for benzo(b)fluoranthene and chrysene, are shaded yellow in the table. Soil samples with PAHs greater than non-industrial direct contact RCLs are shaded red in the table. The PAH results are depicted graphically on **Figure 2**.

Metals concentrations in soil are summarized in **Table 2**. With the exception of an arsenic concentration slightly higher than the background threshold value (BTV) at TP1/H-31, lead concentrations at GB2, GB3, GB5, GB9, and GB14, and estimated concentrations of selenium at TP2/H-16 and TP3/H-17, the detected metals concentrations are below established BTVs and/or applicable RCLs.



### 2.3.2 Petroleum Contamination

Previous site investigation activities primarily addressed petroleum contamination associated with former storage tanks on the property. Most of the petroleum contaminated soil was reportedly treated on site with a combination of in-situ groundwater remediation and on-site thermal treatment and replacement of excavated soil. Investigation activities in 2009 identified small areas of residual petroleum contamination in soil and groundwater. Results of VOC analysis of soil and groundwater samples collected during the 2009 investigation are summarized on **Tables 3** and **4**. Only trace levels of petroleum constituents, and no other VOCs, were detected in the limited number of soil and groundwater samples analyzed for VOCs in 2017. Results of VOC analyses of soil and groundwater samples collected during the 2017 investigation activities are summarized on **Tables 5** and **6**.

## 3.0 PROPOSED DEVELOPMENT

The southern portion of the site is slated for redevelopment with an artisan food production facility and a number of “microlodging” units for short-term rental. The proposed development is shown on the drawings in **Appendix C**. None of the new buildings will have basements.

The development plan requires soil excavation related to site grading, underground utilities, storm water detention ponds, an access road, paved parking areas, and miscellaneous structures. The excavated soils will include fill soils contaminated with PAHs and some metals. Petroleum VOCs are also present in soil in localized areas of the site.

## 4.0 MATERIAL MANAGEMENT

The management approach described in this plan was originally presented to the WDNR in the June 21, 2017 Technical Assistance Request. WDNR approved the approach in a letter dated July 11, 2017. On January 12, 2018, WDNR sent an email that modified their approval to allow disposal of soil with PAH concentrations less than non-industrial direct contact standards and incidental amounts (less than approximately 5 percent) of CCR (Category 2 and 3 soils described below) at a suitable clean fill site without formal tracking of the material.

### 4.1 SOIL MANAGEMENT

#### 4.1.1 Classes of Soil

SCS identified the following five categories of soil to be managed in the June 2017 Technical Assistance Request. We are maintaining the number and general descriptions of the categories here to be consistent with the discussions that have occurred subsequent to the Technical Assistance request submittal.

- Category 1 – Demolition debris
- Category 2 – Clean soil
- Category 3 – PAH-impacted soil below direct contact RCLs

- Category 4 – PAH-impacted soil above direct contact RCLs
- Category 5 – Material requiring landfill disposal

#### 4.1.1.1 Category 1 – Demolition Debris

This material consists of asphalt, concrete, and associated clean road base gravel. This material may be processed and reused on site, taken off site for recycling, or disposed in a facility that accepts such materials. This category does not include materials contaminated with petroleum products, lead based paint, asbestos, or other materials that otherwise require disposal in a licensed solid waste landfill.

#### 4.1.1.2 Category 2 – Clean Soil

Clean soil has a cumulative benzo(a)pyrene equivalent concentration less than 575 micrograms per kilogram (ug/kg) for the seven carcinogenic PAHs and does not exceed individual non-industrial direct contact RCLs for other PAHs. The 575 ug/kg benzo(a)pyrene equivalent concentration corresponds to a  $5 \times 10^{-6}$  cumulative cancer risk for the carcinogenic PAHs. This material does not have concentrations of PAHs greater than the groundwater pathway RCLs or concentrations of metals greater than BTVs. This material is indicated by the green shading on **Table 1**.

The material is expected to consist primarily of native soil and clean imported fill materials (gravel, pit run sand, etc.), without appreciable quantities of CCR or other non-soil materials other than asphalt or clean concrete. The material will be reused as fill or capping material on site, or taken to an off-site clean fill facility.

#### 4.1.1.3 Category 3 – PAH-Impacted Soil Below Direct Contact RCLs

PAH concentrations are less than the cumulative  $5 \times 10^{-6}$  cancer risk direct contact RCL, but exceed the groundwater pathway RCL for benzo(b)fluoranthene and/or chrysene. This material is indicated by the yellow shading on **Table 1**. This material may be reused on site as fill or capping material, or disposed in a facility allowed to take fill material without a capping requirement. This material includes soil with trace/incidental amounts of CCR or other non-soil fill materials.

#### 4.1.1.4 Category 4 – PAH-Impacted Soil Above Direct Contact RCLs

This material contains PAH concentrations greater than the cumulative risk direct contact RCL based on existing laboratory data or more than incidental amounts (approximately 5 percent) CCR based on visual observations. The material may be reused on site under a cap of 1 foot of clean soil, pavement, or buildings. If removed from the site, the material will be disposed at a licensed solid waste landfill, or an alternate site specifically approved under NR 718 and covered with a cap. This material is indicated by the red shading on **Table 1**.

#### 4.1.1.5 Category 5 – Material Requiring Landfill Disposal

This material consists of soil with petroleum contamination indicated by obvious odors, photoionization detector (PID) field screening values greater than 5 parts per million (ppm), or previous sampling. Also included in this category are separable quantities of non-soil material such as CCR (ash/cinders) and other solid waste materials. The material will be disposed at a licensed solid waste landfill.

#### 4.1.2 Material Identification and Segregation

Discussions with the WDNR concluded that Categories 2 and 3 can be managed in a similar fashion. The estimated extents of soil contamination relative to Categories 2/3, 4, and 5 materials, based on laboratory analyses from a large number of soil samples for PAHs and historical data documenting residual petroleum contamination are shown on **Figure 2**.

The shading on **Figure 2** is described below:

- The red grid pattern corresponds to Category 4 soil that has been identified based on laboratory test results for samples collected within the depth likely to be affected by grading.
- The green single hash pattern corresponds to Category 2/3 soil that has been identified based on laboratory test results - with little to no cinders specifically noted in descriptions of soil samples.
- The yellow double hash pattern indicates an area where test pits and borings encountered relatively high proportions of non-soil material in the fill. Depending on the nature of the non-soil fill, the material needs to be categorized in the field. For example, concrete rubble could be classified as Category 1 or might need to be handled as Category 5 if it is mixed with and cannot readily be separated from solid waste materials.
- The solid blue shading indicates areas where residual petroleum contaminated soil may be present and field screening with a PID should be performed to categorize the soil.
- The solid yellow shading indicates areas where high concentrations of PAH soil contamination has been identified and WDNR has requested handling of material as Category 5.

The unshaded portions of **Figure 2** represent areas where PAHs greater than direct contact RCLs have not been detected in lab samples; however, some of these areas may contain fill soil with more than incidental amounts of CCR (cinders). Soils from the unshaded areas need to be visually evaluated during excavation activities to identify whether more than incidental quantities (greater than approximately 5 percent) of cinders are present. Similarly, shallow soil excavated from the green hashed areas should also be checked to confirm that more than incidental quantities of cinders are not present.

An environmental consultant will assist the earthwork contractor as necessary to segregate contaminated soil from non-contaminated soil based on prior lab testing, visible solid waste material content and PID screening where appropriate.

- Petroleum-contaminated soil will be identified based on analytical data from previous investigations, visual and olfactory observations, and screening of soil in the field with a PID. Soil producing field headspace readings greater than 5 ppm on the PID, or with a noticeable petroleum odor, will be classified as Category 5.
- Soil with more than incidental quantities (more than approximately 5 percent) of cinders, slag, ash, or other combustion residues will be considered Category 4.
- In the absence of obvious visual or olfactory evidence of contamination or elevated PID field screening results (greater than 5 ppm), in-place native soil, including peat, clean sand, lacustrine deposits, etc., will be assumed to be Category 2.
- Soil mixed with pieces of asphalt or concrete, but not obviously contaminated with solid waste, may be classified as Category 1 or 2 depending on the amount of asphalt or concrete present.

#### **4.1.3 On-site Replacement**

Excavated material other than Category 5 may be replaced on site. Category 2/3 soils may be reused on site without limitation. Category 4 soil may be replaced on site under a cap, but must not be in contact with or below the water table.

Excavated category 4 soil that is not replaced in the excavation areas or under other capped areas within the limits of the proposed redevelopment project may be deposited in a “berm(s)” that will be constructed on north of the Garver redevelopment project limits. The exact size and shape of the berm(s) have not been finalized. Current estimates indicate that approximately 14,000 cubic yards of excavated Category 4 material may be accommodated within the berm(s). The approximate location of the berm is shown on **Figure 2**.

#### **4.1.4 Off-Site Disposal**

Category 2/3 soil that is not reused on site will be transported to the Mandt Pit in Fitchburg. Category 5 soil will be disposed at a licensed solid waste landfill to be determined based on competitive bids. Likely landfills include the Waste Management of Wisconsin (WMWI) Madison Prairie Landfill in Sun Prairie, the WMWI Deer Track Park Landfill in Johnson Creek, or one of the Advanced Disposal Services landfills in Horicon or Delavan.

#### **4.1.5 Soil Cap**

The Garver redevelopment plan calls for the entire project area to be capped with either structures, pavement, or landscaped areas with 1 foot of clean fill cover at the completion of the

project. The storm water detention ponds will be lined with 2 feet of clay. The extent and nature of the capping materials used will be documented in the case closure request and a cap maintenance plan.

The category 4 soil in the berm(s) will be capped with 1 foot of clean material including 0.5 foot of topsoil. To the extent that identified areas of PAH concentrations greater than non-industrial direct contact RCLs have been identified on the property north of the Garver redevelopment area, these areas may be capped with a reduced thickness of material, consisting of 0.5 feet of topsoil, to minimize grading and potential impacts to the isolated wetlands that have been identified.

## 4.2 GROUNDWATER MANAGEMENT

The observed depth to groundwater at the site is approximately 5 feet bgs. Large-scale dewatering is not anticipated during development activities; however, dewatering of utility trenches and excavations for sewer lift stations will be required. SCS has obtained permits from both the City of Madison to discharge lightly contaminated water to the sanitary sewer system and from WDNR to discharge clean, sediment-free water to Starkweather Creek with coverage under a Wisconsin Pollutant Discharge Elimination System (WPDES) general permit. The WPDES permit approval requires testing for contaminants and sediment content to confirm that the discharge meets permit limits. Copies of the discharge permits are included in **Appendix D**.

## 4.3 VAPOR MANAGEMENT

Because of the relatively low levels of residual petroleum contamination at the site, it is unlikely that vapor management will present a significant issue during construction. Sub-slab vapor testing in the existing Garver building indicated that detected VOC concentrations in soil vapor are at least four times less than the corresponding vapor risk screening levels (VRSLs) for residential occupancies. Unless indications to the contrary are observed during construction, special provisions with respect to vapor intrusion are not necessary.

## 4.4 UNUSUAL CONDITIONS

If any tanks, unusual odors, staining, fluids, or piping are found, work will stop in that area, the contractor will notify the owner of the conditions, and the designated environmental consultant will inspect the site to assess the situation.

If contaminated material is encountered that is significantly different than what has been previously identified during the site investigation, it will be evaluated by an environmental professional. If warranted, the City will notify the WDNR of a potential new release to the environment. Disposal profiles with the selected licensed landfill site (s) will be updated based on new information as needed.

## 5.0 ROLES AND RESPONSIBILITIES

The following roles and responsibilities have been identified for this project:

### **Property Owner (City of Madison)**

- Responsible for management of contaminated soil.
- Designs berm and other related features on the north portion of the property outside the Garver redevelopment area.
- Retains environmental consultant.

### **Developer or Construction Manager/Developer's Agent (Garver Feed Mill, LLC)**

- Performs overall project scheduling and retains civil engineer and contractor.

### **Civil Engineer (JJR)**

- Develops plans and specifications for any project earthwork incorporating the requirements of the MMP.

### **Environmental Professional (SCS Engineers)**

- Provides on-site observation and documentation during any earthwork activities at the property.
- Provides field screening of excavated material and directs the placement of excavated material in the agreed upon locations. Field screening will include visual observations and screening with a PID where appropriate.
- Provides recommendations for management of any special or unanticipated environmental conditions encountered during development of the property.

### **Contractor (Homburg)**

- Performs earthwork in accordance with the project construction plans and specifications.
- Informs environmental professional and developer of schedule and any unusual conditions encountered during development.

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## **TABLES**

- 1 Soil Analytical Results Summary – PAHs
- 2 Soil Analytical Results Summary – Metals
- 3 2009 Soil Analytical Results Summary – VOCs
- 4 2009 Groundwater Analytical Results Summary – VOCs
- 5 2017 Soil Analytical Results Summary – PVOCs
- 6 2017 Groundwater Analytical Results Summary – VOCs



**Table 1. Soil Analytical Results Summary - PAHs**  
**Garver Feed Mill, Madison, Wisconsin / SCS Engineers Project #25215077.00**  
 (Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	Lab Notes	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(b)fluoranthene	Benzo(k)fluoranthene	Benzo(a)pyrene	Benzo(ghi)perylene	Chrysene	Dibenzo(a,h)anthracene	Fluoranthene	Fluorene	Indeno(1,2,3-cd)pyrene	1-Methylnaphthalene	2-Methylnaphthalene	Naphthalene	Phenanthrene	Pyrene	BAP equivalent
GB-1	8/21/2009	0-4	--	< 56	< 96	30	50	110	26	68	65	71	18	160	1,600	39	< 34	110	290	150	250	106
GB-2	8/21/2009	0-4	--	390	200	64	560	<u>680</u>	240	<u>640</u>	730	<u>850</u>	65	1,500	85	580	82	290	490	990	2,200	<u>890</u>
GB-3	8/21/2009	0-4	--	< 270	< 460	570	<u>1,500</u>	<u>1,000</u>	460	<u>1,200</u>	820	<u>2,100</u>	110	3,600	540	620	1,300	4,300	<u>6,200</u>	3,000	6,200	<u>1,629</u>
GB-4	8/21/2009	2-4	--	< 31	< 53	< 3.1	13	11	9.6	20	19	14	< 4.7	< 6.2	< 6.2	10	29	< 19	< 19	< 3.1	36	28
GB-5	8/21/2009	3.5-4	--	60	< 87	190	440	320	150	<u>380</u>	300	<u>560</u>	40	1,500	54	250	180	780	260	860	1,900	523
GB-6	8/21/2009	2-4	--	< 410	< 710	< 41	< 41	41	< 41	48	41	< 41	< 62	130	< 83	59	< 250	< 250	< 250	61	270	125
GB-7	8/21/2009	2-4	--	< 2700	< 4,700	280	750	<u>770</u>	280	<u>1,200</u>	810	<u>570</u>	< 410	1,600	< 550	790	< 1,600	< 1,600	< 1.6	1,000	2,200	<u>1,844</u>
GB-8	8/21/2009	5-7	--	< 37	< 63	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 3.7	< 5.5	< 7.4	< 7.4	< 3.7	< 22	< 22	< 22	< 3.7	< 3.7	10
GB-9	8/21/2009	2-4	--	< 130	< 220	17	53	140	34	<u>150</u>	110	< 91	< 20	120	< 26	22	< 78	< 78	< 78	74	260	192
GB-10	8/21/2009	2-3	--	< 600	< 1,000	800	<u>1,200</u>	<u>1,500</u>	< 60	<u>730</u>	< 60	<u>1,700</u>	< 91	2,900	470	< 60	2,200	7,600	<u>2,600</u>	3,900	10,000	<u>1,099</u>
GB-11	8/21/2009	3-4	--	450	< 170	150	170	82	35	<u>140</u>	120	<u>400</u>	15	1,600	100	50	290	300	510	1,200	2,500	186
GB-12	8/21/2009	2.5-3.5	--	93	< 46	22	33	16	6.8	28	23	49	< 4	58	18	20	61	120	68	98	120	39
GB-13	8/21/2009	2.5-3.5	--	< 35	< 60	12	40	25	12	31	31	54	< 5.3	85	14	17	35	140	49	110	250	45
GB-14	8/21/2009	1.5-2.5	--	4,600	< 420	14,000 E	<u>46,000</u> E	<u>8,800</u>	<u>25,000</u> E	<u>55,000</u> E	44,000	<u>77,000</u> E	<u>6,300</u>	77,000	8,200	<u>38,000</u>	< 150	24,000	<u>4,000</u>	46,000	<u>82,000</u>	<u>70,907</u>
CGC B-1	5/20/2015	0-2	--	< 7.0	< 5.1	< 6.5	< 5.2	< 8.4	< 11	< 7.5	< 13	< 11 *	< 7.5	< 7.2	< 5.5	< 10	< 9.5	< 7.2	< 6	< 5.4	< 7.7	17
CGC B-2	5/20/2015	0-2	--	< 6.4	< 4.7	< 6	< 4.8	< 7.7	< 11	< 6.9	< 11	< 9.7 *	< 6.9	< 6.6	< 5	< 9.2	< 8.7	< 6.6	< 5.5	10 J	< 7.1	16
CGC B-3	5/20/2015	1-2	--	< 6.5	< 4.8	< 6	17 J	31 J	11 J	15 J	34 J	20 J*	< 7	29 J	< 5.1	17 J	8.8 J	16 J	< 5.6	43	42	29
CGC B-4	5/20/2015	0-2	--	< 6.3	< 4.6	< 5.8	< 4.7	< 7.5	< 10	< 6.8	< 11	< 9.5 *	< 6.7	< 6.5	< 4.9	< 9	< 8.5	< 6.4	< 5.4	8 J	< 6.9	16
CGC B-5	5/20/2015	0-2	--	< 8.0	< 5.9	11 J	62	86	35 J	56	41 J	72 *	14 J	77	13 J	39 J	< 11	11 J	< 6.8	74	79	89
CGC B-6	5/20/2015	0-2	--	7.5 J	11 J	18 J	210	270	110	<u>180</u>	150	<u>220</u> *	49	320	14 J	130	18 J	20 J	11 J	99	390	291
CGC B-7	5/20/2015	3-5	--	< 6.7	< 4.9	< 6.2	15 J	22 J	< 11	12 J	23 J	14 J*	< 7.2	21 J	< 5.2	13 J	< 9.1	< 6.8	< 5.7	28 J	24 J	24
CGC B-8	5/20/2015	0-2	--	75 J	< 26	170 J	<u>1,500</u>	<u>2,100</u>	1,100	<u>1,400</u>	1,100	<u>1,500</u> *	<u>380</u>	2,700	86 J	910	< 49	< 37	< 31	1,100	2,800	<u>2,244</u>
HA-9	5/20/2015	0-2	--	42 J	< 25	91 J	510	<u>540</u>	260	<u>320</u>	280	<u>460</u> *	110 J	720	60 J	210	210	260	110 J	900	870	559
SCS-10	5/20/2015	0-2	--	81 J	80 J	240	1,100	<u>1,700</u>	900	<u>1,000</u>	1,100	<u>1,300</u> *	<u>250</u>	1,700	91 J	1,000	270	360	330	1,400	2,200	<u>1,640</u>
SCS-11	5/20/2015	0-2	--	< 7.6	< 5.6	< 7.1	25 J	43	21 J	24 J	41 J	32 J*	< 8.2	41 J	< 5.9	25 J	< 10	< 7.8	< 6.5	28 J	42	42
TP-1	3/21/2017	0-1	--	40	29 J	130 F2	400 F1 F2	<u>530</u> F1 F2	240	<u>350</u> F1 F2	200 F1 F2	<u>500</u> F1 F2	51 F1	910 F1 F2	50	170 F2	32 J	37 J	36 J	580 F1 F2	640 F1 F2	514
		1-2	--	14 J	33 J	68	200	260	82	<u>180</u>	110	<u>240</u>	27 J	450	22 J	92	86	94	71	340	340	263
		4	--	< 9.1	< 6.7	< 8.5	10 J	< 11	< 15	< 9.8	< 16	< 14	< 9.8	10 J	< 7.1	< 13	< 12	< 9.3	< 7.8	10 J	11 J	23
TP-2	3/21/2017	0-1	(1)	< 6.2	27 J	44	180	400	110	<u>230</u>	290	<u>220</u>	43	290	8.7 J	150	< 8.4	6.5 J	8.1 J	110	430	347
		1-2	--	< 6.5	5.5 J	13 J	100	360	150 F1	<u>190</u>	140 F1	120	26 J F1	110	< 5.1	100 F1	< 8.8	9.1 J	6.0 J	40	130 F1	274
		2-3	(1)	< 6.8	< 5	6.4 J	32 J	100	31 J	46	140	39	< 7.3	42	< 5.3	52	9.9 J	15 J	8.0 J	28 J	52	72
TP-3	3/21/2017	0-1	--	< 6.7	9.9 J	19 J	77	170	48	68	110	120	15 J	140	< 5.2	51	21.0 J	31 J	29 J	99	150	113
		1-2	--	< 6.9	9.3 J	16 J	53	98	40	51	81	74	10 J	97	< 5.4	42	14 J	18 J	17 J	77	98	81
		3-4	--	< 6.9	12 J	32 J	120	230	82	110	130	<u>180</u>	19 J	240	7.3 J	64	26 J	42 J	46	160	270	171
TP-4	3/21/2017	0-1	(1)	< 6.2	< 4.6	< 5.8	< 4.7	< 7.5	< 10	< 6.7	< 11	< 9.4	< 6.7	< 6.4	< 4.9	< 9	< 8.4	< 6.4	< 5.3	< 7.8	< 6.9	16
TP-5	3/21/2017	0-1	--	54	30 J	170	520	<u>860</u>	260	<u>480</u>	190	<u>620</u>	62	1,100	61	170	180	220	110	780	860	<u>700</u>
		1-2	--	25 J	46	100	370	<u>490</u>	150	<u>320</u>	130	<u>400</u>	42 J	760	28 J	120	120	140	68	490	610	462
HA-6	3/21/2017	0-1	(1)	110	< 4.9	440	<u>3,700</u>	<u>5,200</u>	2,200	<u>3,200</u>	1,400	<u>4,800</u>	<u>480</u>	6,500	110	<u>1,200</u>	830	970	500	2,200	5,000	<u>4,717</u>
HA-7	3/21/2017	0-1	--	< 6.8	< 5	71	170	190	88	<u>130</u>	54	<u>170</u>	< 7.3	230	15 J	37 J	260	300	170	520	210	178
HA-8	3/21/2017	0-1	--	18 J	32 J	66	250	400	110	<u>240</u>	130	<u>300</u>	35 J	550	20 J	100	83	100	65	270	410	351
		1-2	--	30 J	47	110	300	440	190	<u>290</u>	110	<u>330</u>	31 J	650	34 J	100	77 J	100	76	410	560	407
HA-9	3/21/2017	0-1	--	8.4 J	5 J	33 J	120	170	80	<u>130</u>	96	140	20 J	310	7.5 J	72	10 J	14 J	7.0 J	130	220	187
HA-10	3/21/2017	0-1	(1)	16 J	13 J	52	190	370	97	<u>180</u>	140	<u>230</u>	22 J	380	20 J	77	39 J	53 J	42	240	390	267
		1-2	--	35	14 J	97	390	<u>610</u>	280	<u>360</u>	67	<u>420</u>	21 J	730	33 J	73	140	160	78	520	600	492






**Table 1. Soil Analytical Results Summary - PAHs**  
**Garver Feed Mill, Madison, Wisconsin / SCS Engineers Project #25215077.00**  
 (Results are in µg/kg, except where noted otherwise)

Abbreviations:  
 µg/kg = micrograms per kilogram or parts per billion (ppb)      -- = Not Applicable      NE = Not Established      CAS No. = Chemical Abstracts Service Number  
 PAHs = Polynuclear Aromatic Hydrocarbons      RCLs = Residual Contaminant Levels      WDNR = Wisconsin Department of Natural Resources      BAP = Benzo(a)pyrene

Notes:  
**Bold+underlined** values meet or exceed an NR 720 RCL, as of March 2017.  
 Benzo(a)pyrene equivalent for each sample was calculated by multiplying the concentration of each of 7 carcinogenic PAHs by the relative BAP potency and summing these values.  
 The BAP equivalent of 575 µg/kg is based on the concentration of Benzo(a)pyrene that yields a cancer risk of 5 x 10E-6 in the RCL calculator.

Laboratory Notes/Qualifiers:  
 (1) Terphenyl-d14 (Surr) - Surrogate is outside of control limit.  
 \* = Laboratory control sample and laboratory control sample duplicate is outside acceptance limits.  
 F1 = MS and/or MSD Recovery is outside acceptance limits.  
 F2 = MS/MSD RPD exceeds control limits.  
 J = Result is less than the RL or greater than or equal to the MDL and the concentration is an approximate value.  
 H = Sample was prepped or analyzed beyond the specified holding time.

 Green rows indicate samples for which the calculated benzo(a)pyrene equivalent of 7 carcinogenic PAHs does not exceed a cancer risk of 5 x 10E-6 (575 ug/kg) and which have no individual RCL exceedances for other PAHs.  
 Yellow rows indicate samples that have individual groundwater pathway RCL exceedances but for which the calculated benzo(a)pyrene equivalent of 7 carcinogenic PAHs does not exceed a cancer risk of 5 x 10E-6 (575 ug/kg). (Naphthalene and 1-methylnaphtylene) are not included in the cumulative cancer risk of the 7 carcinogenic PAHs; however, their contribution to the excess cancer risk at this site is negligible.)  
 Red rows indicate samples that have individual RCL exceedances and for which the calculated benzo(a)pyrene equivalent of 7 carcinogenic PAHs exceeds a cancer risk of 5 x 10E-6 (575 ug/kg).

Created by: EO      Date: 3/30/2017  
 Last revision by: EO      Date: 6/4/2017  
 Checked by: MDB      Date: 6/5/2017

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**Table 2. Soil Analytical Results Summary - Metals**  
**Garver Feed Mill / SCS Engineers Project #25215077**  
 (Results are in mg/kg)

Sample	Date	Depth (feet)	Lab Notes	Arsenic	Barium	Cadmium	Chromium (Total)	Lead	Mercury	Selenium	Silver
GB1	8/21/2009	0-4	--	NA	NA	NA	NA	6.4	NA	NA	NA
GB2	8/21/2009	0-4	--	NA	NA	NA	NA	<b>94</b>	NA	NA	NA
GB3	8/21/2009	0-4	--	NA	NA	NA	NA	<b>100</b>	NA	NA	NA
GB4	8/21/2009	2-4	--	NA	NA	NA	NA	6.3	NA	NA	NA
GB5	8/21/2009	3.5-4	--	NA	NA	NA	NA	<b>260</b>	NA	NA	NA
GB6	8/21/2009	2-4	--	2.0	NA	<0.11	5.2	24	NA	NA	NA
GB7	8/21/2009	2-4	--	3.4	NA	0.26	6.4	44	NA	NA	NA
GB8	8/21/2009	5-7	--	5.1	NA	<0.19	7.4	24	NA	NA	NA
GB9	9/21/2009	2-4	--	<1.7	NA	0.68	<b>14</b>	14	NA	NA	NA
GB10	8/21/2009	2-3	--	NA	NA	NA	NA	<b>81</b>	NA	NA	NA
GB11	8/21/2009	3-4	--	NA	NA	NA	NA	48	NA	NA	NA
GB12	8/21/2009	2.5-3.5	--	NA	NA	NA	NA	40	NA	NA	NA
GB13	8/21/2009	2.5-3.5	--	NA	NA	NA	NA	12	NA	NA	NA
GB14	8/21/2009	1.5-2.5	--	NA	100	NA	NA B	<b>86</b>	0.022 H	<0.58	<0.14
GB-1	5/20/2015	0-2	--	5.3	100	<0.068	16 B	11	0.022 H	<0.58	<0.14
GB-2 (C2)	5/20/2015	0-2	--	5.5	79	<0.063	14 B	5.5	0.023 H	<0.54	<0.13
GB-3 (C3)	5/20/2015	1-2	--	3.3	49	0.12 J,B	8.5 B	10	0.012 J,H	<0.49	<0.12
GB-4 (C4)	5/20/2015	0-2	--	5.7	120	<0.058	16 B	7.7	0.026 H	<0.49	<0.12
TP2/H-16	5/11/2017	3-4	--	0.97 J	31	0.56 B	5.6	9.2	0.036 B	<b>1.2</b> J	<0.19
TP3/H-17	5/11/2017	3-4	--	1.60 J	28	0.68 B	6.1	9.1	0.017 JB	<b>1</b> J	<0.21
TP4/H-18	5/11/2017	3-4	--	3.80	63	0.075 JB	16	9.3	0.044 B	<0.67	<0.15

**Table 2. Soil Analytical Results Summary - Metals**  
**Garver Feed Mill / SCS Engineers Project #25215077**  
 (Results are in mg/kg)

Sample	Date	Depth (feet)	Lab Notes	Arsenic	Barium	Cadmium	Chromium (Total)	Lead	Mercury	Selenium	Silver
TP1/H-31	5/11/2017	3-4	--	<b><u>8.10</u></b>	46	0.51 <sup>B</sup>	5.9	19	0.045 <sup>B</sup>	<0.67	<0.15
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2				0.584	164.8	0.752	360,000	27	0.208	0.52	0.8491
NR 720 Non-Industrial Not-To-Exceed Direct Contact RCLs				0.677	15,300	71.1	NE <sup>1</sup>	400	3.13	391	391
NR 720 Industrial Direct Contact RCLs				3	100,000	985	NE <sup>1</sup>	800	3.13	5,840	5,840
Background Threshold Value				8	364	1	44	52	NE	NE	NE

Abbreviations:

mg/kg - milligrams per kilogram or parts per million (ppm)

-- = Not Applicable

NA = Not Analyzed

Notes:

**Bold+underlined** values exceed NR 720 RCLs and background threshold values, as of March 2017.

<sup>1</sup> Chromium Direct Contact Standards: III Non-Industrial Direct Contact RCL = 100,000 mg/kg; Industrial Direct Contact RCL = 100,000 mg/kg

VI Non-Industrial Direct Contact RCL = 0.293 mg/kg; Industrial Direct Contact RCL = 5.58 mg/kg

Background threshold values are non-outlier trace element maximum levels in Wisconsin surface soils from the USGS Report at: <http://pubs.usgs.gov/sir/2011/5202>, as listed in the WDNR RR Program's RCL spreadsheet at: <http://dnr.wi.gov/topic/Brownfields/professionals.html>.

NR 720 values are taken from March 2017 RCL Table.

Laboratory Notes/Qualifiers:

B = Compound was found in the blank and sample.

H = Sample was prepped or analyzed beyond the specified holding time.

J = Result is less than the reporting limit but greater than or equal to the method detection limit and the concentration is an approximate value.

Created by: TLC Date: 7/13/2015

Last revision by: AV Date: 6/14/2017

Checked by: MDB Date: 6/14/2017

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**Table 3. 2009 Soil Analytical Results Summary - VOCs**  
**Garver Feed Mill / SCS Engineers Project #25215077**  
 (Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	DRO (mg/kg)	GRO (mg/kg)	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	MTBE	Lead (mg/kg)	Other VOCs
GB3	8/21/2009	6-8	5.5	(1)(2)	NA	NA	<30	<30	<30	<100	<30	<30	<30	NA	ND
GB4	8/21/2009	2-4	0.0	--	NA	NA	<26	<26	<26	<78	<26	<26	<26	<b>6.3</b>	NA
GB5	8/21/2009	3.5-4	0.2	--	NA	NA	<b>45</b>	<b>43</b>	<b>190</b>	<b>360</b>	<b>130</b>	<b>40</b>	<33	<b>260</b>	NA
GB6	8/21/2009	2-4	0.0	(1)	NA	NA	<28	<28	<28	<94	<28	<28	<28	<b>24</b>	ND
GB7	8/21/2009	2-4	9.6	(1)(2)	NA	NA	<27	<27	<27	<b>110</b>	<b>37</b>	<b>32</b>	<27	<b>44</b>	n-Butylbenzene 69 sec-Butylbenzene 40 p-Isopropyltoluene 29 Naphthalene 68
GB8	8/21/2009	5-7	0.0	(1)(2)	NA	NA	<51	<51	<51	<170	<51	<51	<51	<b>24</b>	ND
GB9	8/21/2009	2-4	0.0	(1)	NA	NA	<30	<30	<30	<100	<30	<30	<30	<b>14</b>	ND
MeOH Blank	8/21/2009	--	--	--	NA	NA	<25	<25	<25	<85	<25	<25	<25	NA	ND
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2					NE	NE	5.1	1,570	1,107.20	3,960	(a)		27	27	Naphthalene 658.2
NR 720 Non-Industrial Direct Contact RCLs					NE	NE	1,600	8,020	818,000	260,000	219,000	182,000	63,800	400	n-Butylbenzene 108,000 sec-Butylbenzene 145,000 p-Isopropyltoluene 162,000 Naphthalene 5,520
NR 720 Industrial Direct Contact RCLs					NE	NE	7,070	35,400	818,000	260,000	219,000	182,000	282,000	800	n-Butylbenzene 108,000 sec-Butylbenzene 145,000 p-Isopropyltoluene 162,000 Naphthalene 24,100
CAS No.					68334-30-5	8006-61-9	71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	1634-04-4	7439-92-1	

Abbreviations:

µg/kg = micrograms per kilogram or parts per billion (ppb)  
 PID = Photo-Ionization Detector  
 TMB = Trimethylbenzene  
 NE = Not Established

mg/kg - milligrams per kilogram or parts per million (ppm)  
 VOCs = Volatile Organic Compounds  
 NA = Not Analyzed  
 -- = Not Applicable

ppm = PID measured in ppm as isobutylene  
 MTBE = Methyl-tert-butyl ether  
 ND = Not Detected

Notes:

**Bold+underlined** values exceed an NR 720 RCL, as of March 2017.

(a) NR 720 Groundwater Pathway RCLs for 1,2,4 and 1,3,5 Trimethylbenzene Combined = 1,382.1

Laboratory Notes/Qualifiers:

- (1) Hexachlorobutadiene analysis - Calibration Verification recovery was outside the method control limits for this analyte. The LCS for this analyte met CCV acceptance criteria, and was used to validate the batch.
- (2) Surr: 4-Bromofluorobenzene analysis - Surrogate recovery was above acceptance limits.

Created by: LMH Date: 9/22/2009  
 Last revision by: AV Date: 6/14/2017  
 Checked by: LMH Date: 6/14/2017

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**Table 4. 2009 Groundwater Analytical Results Summary -  
VOCs Garver Feed Mill / SCS Engineers Project #25215077**  
(Results are in µg/L)

Sample	Date	Lab Notes	DRO	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Lead	Other VOCs
GB1	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB2	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB3	8/21/009	(2)	NA	NA	<b><u>580</u></b>	<b><u>120</u></b>	<b><u>130</u></b>	<b><u>2,400</u></b>	<b><u>1,280</u></b>	<20	NA	Isopropylbenzene 18 J p-Isopropyltoluene 16 J Naphthalene <b><u>280</u></b>
GB4	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB8	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
Trip Blank	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
NR 140 Enforcement Standards (ES)			NE	NE	5	700	800	2,000	480	60	15	Naphthalene 100
NR 140 Preventive Action Limits (PAL)			NE	NE	0.5	140	160	400	96	12	1.5	Naphthalene 10

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

MTBE = Methyl-tert-butyl ether

-- = Not Applicable

TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

NA = Not Analyzed

VOCs = Volatile Organic Compounds

ND = Not Detected

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

**Bold+underlined** values meet or exceed NR 140 ESs.

*Italic+underlined* values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:

A-01 = External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

J = Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

(1) Bromomethane, n-butylbenzene, sec-butylbenzene, carbon tetrachloride, 1,1-dichloroethene, 1,1-dichloropropene, p-isopropyltoluene, n-propylbenzene, 1,2,4-trichlorobenzene, trichlorofluoromethane, and vinyl chloride analyses - External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

(2) Vinyl chloride analysis - External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Created by: LMH Date: 9/22/2009

Last revision by: AV Date: 6/14/2017

Checked by: LMH Date: 6/14/2017

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**Table 5. 2017 Soil Analytical Results Summary - PVOCs**  
**Garver Feed Mill / SCS Engineers Project #25216207.00**  
 (Results are in µg/kg, except where noted otherwise)

Sample	Date	Depth (feet)	PID (ppm)	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	1,2,4-TMB	1,3,5-TMB	1,2,4- & 1,3,5-TMB Combined	MTBE	Naphthalene	Other VOCs
TP-4	3/21/2017	4-5		--	<33	<34	<31	<54	1,300	34 J	1,334	<22	410 J	NA
TP-5	3/21/2017	0-1		--	<u>55</u> J	<55	180	260	310	89	399	<35	450 J	NA
	3/21/2017	1-2		--	<u>110</u>	<50	270	290	210	<39	210	<31	<310	NA
	3/21/2017	2.5		--	<u>100</u>	<55	360	570	280	<44	280	<u>45</u> J	<350	NA
TP1/H31	5/11/2017	3-4		1	<11	<14	23	<17	<28	<29	<57	<30	<26	ND
TP-2/H-16	5/11/2017	3-4		1	<16	<20	<16	<24	<40	<42	<82	<44	<37	ND
TP3/H17	5/11/2017	3-4		1	<19	<24	<19	<28	<46	<49	<95	<51	<43	ND
TP-4/H-18	5/11/2017	3-4		1	<9.3	<12	<9.4	<14	<23	<24	<47	<25	<21	ND
TP-5/H-23	5/11/2017	3-4		1	<9.4	<12	<9.5	<14	<23	<25	<48	<25	<22	ND
TP6/H25	5/11/2017	3-4		1	<8.9	<11	<9.0	15 J	160	78	238	<24	<20	ND
H-TP8	5/11/2017	5-6		1	<10	<13	<10	<15	<25	<26	<51	<27	<23	ND
Trip Blank	3/21/2017	--	--	--	<18	<19	<17	<30	<15	<15	<30	<12	<120	NA
NR 720 Groundwater Pathway RCLs with a Wisconsin-Default Dilution Factor of 2					5.1	1,570	1,107.20	3,960	(a)		1382.1	27	658.2	
NR 720 Non-Industrial Direct Contact RCLs					1,600	8,020	818,000	260,000	89,800	182,000	NE	63,800	5,520	
NR 720 Industrial Direct Contact RCLs					7,070	35,400	818,000	260,000	219,000	182,000	NE	282,000	24,100	
CAS No.					71-43-2	100-41-4	108-88-3	1330-20-7	95-63-6	108-67-8	--	1634-04-4	91-20-3	

Abbreviations:

µg/kg = micrograms per kilogram or parts per billion (ppb)  
 RCLs = Residual Contaminant Levels  
 NA = Not Analyzed  
 -- = Not Applicable

PID = Photo-Ionization Detector  
 VOCs = Volatile Organic Compounds  
 NE = Not Established  
 CAS No. = Chemical Abstracts Service Number

Notes:

**Bold+underlined** values exceed an NR 720 RCL, as of March 2017.  
 (a) NR 720 Groundwater Pathway RCLs for 1,2,4 and 1,3,5 Trimethylbenzene Combined = 1,382.1

Laboratory Notes/Qualifiers:

J = Result is less than the RL but greater than or equal to the MDL and the concentration  
 1 = LCS or LCSD is outside acceptance limits

Created by: AV Date: 5/23/2017  
 Last revision by: AV Date: 5/23/2017  
 Checked by: EO Date: 3/23/2017



**Table 6. 2017 Groundwater Analytical Results Summary -  
VOCs Garver Feed Mill / SCS Engineers Project #25216207.00**  
(Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Naphthalene	Other VOCs
TP-5 GW	3/21/2017	--	<0.36	<0.37	<0.33	<0.58	<0.60	<0.24	<2.4	NA
TW-5	5/11/2017	--	<1.8	<1.9	<1.7	<2.9	<3.0	<1.2	<12	ND
H-T9	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
H-T10	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP-1/H31	5/11/2017	--	<0.15	<0.18	<0.15	0.56 J	0.79 J	<0.39	0.54 J	ND
TP2/H16	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP4/H18	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP6/H25	5/11/2017	--	<0.15	2.4	<0.15	8.5	14	<0.39	0.57 J	ND
TB	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
NR 140 Enforcement Standards (ESs)			5	700	800	2,000	480	60	100	
NR 140 Preventive Action Limits (PALs)			0.5	140	160	400	96	12	10	

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

NA = Not Analyzed

(Dup) = Duplicate Sample

MTBE = Methyl-tert-butyl ether

ND = Not Detected

-- = Not Applicable

VOCs = Volatile Organic Compounds

NE = No Standard Established

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

**Bold+underlined** values meet or exceed NR 140 ESs.

*Italic+underlined* values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an

Created by: AV Date: 5/23/2017

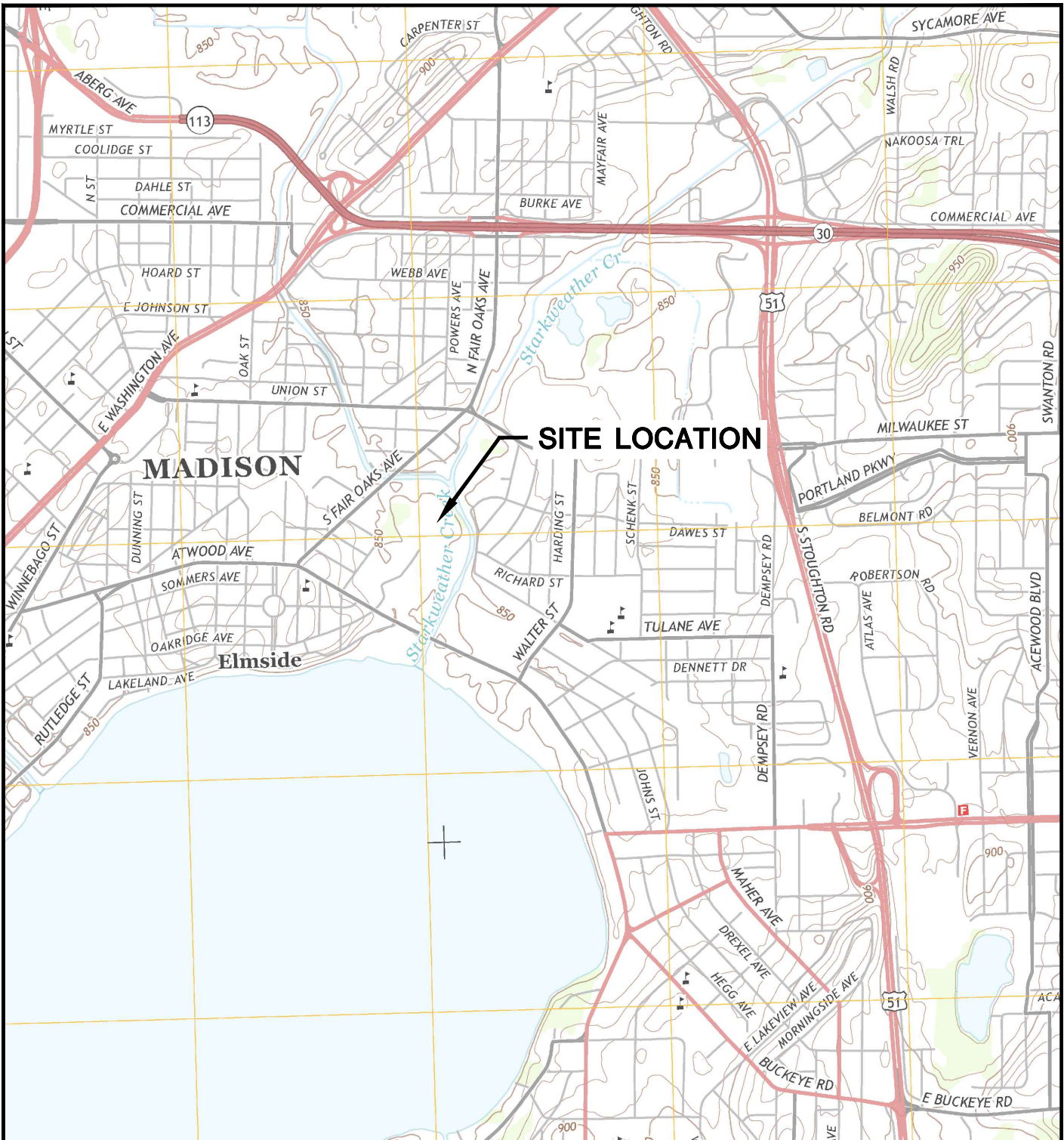
Last revision by: AV Date: 5/23/2017

Checked by: EO Date: 5/23/2017

I:\25216207.00\Data and Calculations\Tables\[GW\_VOCs1\_170523.xls]GW VOCs


## **FIGURES**

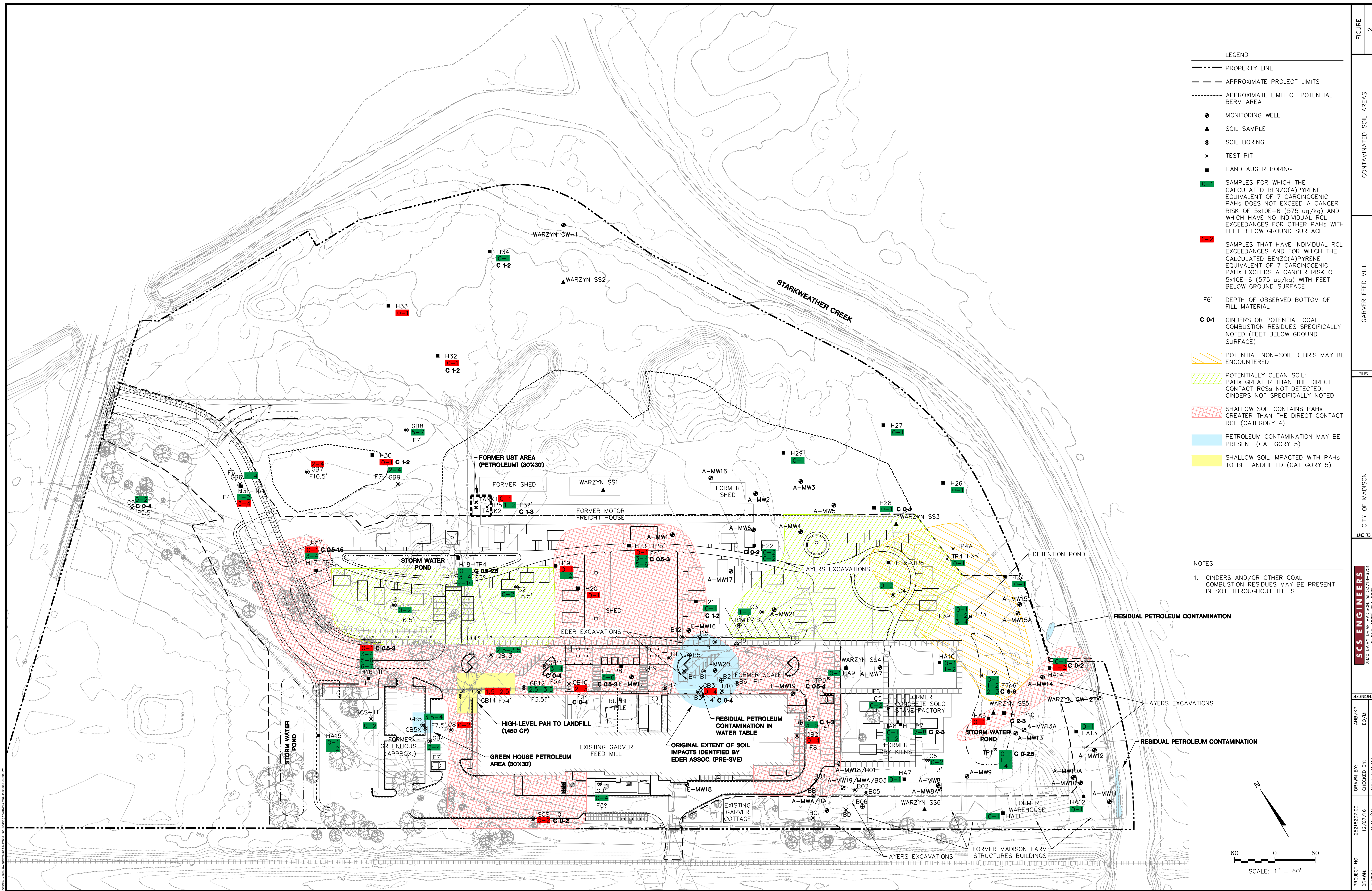
- 1 Site Location Map
- 2 Contaminated Soil Areas



MADISON EAST QUADRANGLE  
 WISCONSIN-DANE CO.  
 7.5 MINUTE SERIES (TOPOGRAPHIC)  
 2013  
 SCALE: 1" = 2,000'



 CLIENT CITY OF MADISON 210 MARTIN LUTHER KING JR. BLVD. MADISON WI 53703	SITE GARVER FEED MILL 109, 115 S. FAIR OAKS AVE. MADISON, WISCONSIN	SITE LOCATION MAP	
		PROJECT NO. 25215077.00 DRAWN: 06/08/17 REVISED: 04/19/18	DRAWN BY: BJM CHECKED BY: LB APPROVED BY: EO



## **APPENDIX A**

Technical Assistance Request Form (4400-237)

**Notice:** Use this form to request a **written response (on agency letterhead)** from the Department of Natural Resources (DNR) regarding technical assistance, a post-closure change to a site, a specialized agreement or liability clarification for Property with known or suspected environmental contamination. A fee will be required as is authorized by s. 292.55, Wis. Stats., and NR 749, Wis. Adm. Code., unless noted in the instructions below. Personal information collected will be used for administrative purposes and may be provided to requesters to the extent required by Wisconsin's Open Records law [ss. 19.31 - 19.39, Wis. Stats.].

### Definitions

**"Property"** refers to the subject Property that is perceived to have been or has been impacted by the discharge of hazardous substances.

**"Liability Clarification"** refers to a written determination by the Department provided in response to a request made on this form. The response clarifies whether a person is or may become liable for the environmental contamination of a Property, as provided in s. 292.55, Wis. Stats.

**"Technical Assistance"** refers to the Department's assistance or comments on the planning and implementation of an environmental investigation or environmental cleanup on a Property in response to a request made on this form as provided in s. 292.55, Wis. Stats.

**"Post-closure modification"** refers to changes to Property boundaries and/or continuing obligations for Properties or sites that received closure letters for which continuing obligations have been applied or where contamination remains. Many, but not all, of these sites are included on the GIS Registry layer of RR Sites Map to provide public notice of residual contamination and continuing obligations.

### Select the Correct Form

This form should be used to request the following from the DNR:

- Technical Assistance
- Liability Clarification
- Post-Closure Modifications
- Specialized Agreements (tax cancellation, negotiated agreements, etc.)

**Do not use this form if one of the following applies:**

- Request for an **off-site liability exemption or clarification** for Property that has been or is perceived to be contaminated by one or more hazardous substances that originated on another Property containing the source of the contamination. Use DNR's Off-Site Liability Exemption and Liability Clarification Application Form 4400-201.
- Submittal of an Environmental Assessment for the **Lender Liability Exemption**, s 292.21, Wis. Stats., **if no response or review by DNR is requested**. Use the Lender Liability Exemption Environmental Assessment Tracking Form 4400-196.
- Request for an **exemption to develop on a historic fill site** or licensed landfill. Use DNR's Form 4400-226 or 4400-226A.
- **Request for closure** for Property where the investigation and cleanup actions are completed. Use DNR's Case Closure - GIS Registry Form 4400-202.

**All forms, publications and additional information are available on the internet at:** [dnr.wi.gov/topic/Brownfields/Pubs.html](http://dnr.wi.gov/topic/Brownfields/Pubs.html).

### Instructions

1. Complete sections 1, 2, 6 and 7 for all requests. Be sure to provide adequate and complete information.
2. Select the type of assistance requested: Section 3 for technical assistance or post-closure modifications, Section 4 for a written determination or clarification of environmental liabilities; or Section 5 for a specialized agreement.
3. Include the fee payment that is listed in Section 3, 4, or 5, unless you are a "Voluntary Party" enrolled in the Voluntary Party Liability Exemption Program **and** the questions in Section 2 direct otherwise. Information on to whom and where to send the fee is found in Section 8 of this form.
4. Send the completed request, supporting materials and the fee to the appropriate DNR regional office where the Property is located. See the map on the last page of this form. A paper copy of the signed form and all reports and supporting materials shall be sent with an electronic copy of the form and supporting materials on a compact disk. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>

The time required for DNR's determination varies depending on the complexity of the site, and the clarity and completeness of the request and supporting documentation.

## Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 2 of 6

### Section 1. Contact and Recipient Information

#### Requester Information

This is the person requesting technical assistance or a post-closure modification review, that his or her liability be clarified or a specialized agreement and is identified as the requester in Section 7. DNR will address its response letter to this person.

Last Name Brynn	First Bemis	MI	Organization/ Business Name City of Madison Engineering Division
Mailing Address 210 Martin Luther King, Jr. Blvd, Rm 115			City Madison
			State WI
			ZIP Code 53703
Phone # (include area code) (608) 267-1986	Fax # (include area code) (608) 264-9275	Email bbemis@cityofmadison.com	

The requester listed above: (select all that apply)

- Is currently the owner
  Is considering selling the Property  
 Is renting or leasing the Property
  Is considering acquiring the Property  
 Is a lender with a mortgagee interest in the Property  
 Other. Explain the status of the Property with respect to the applicant:

#### Contact Information (to be contacted with questions about this request)

Select if same as requester

Contact Last Name Oelkers	First Eric	MI K	Organization/ Business Name SCS Engineers
Mailing Address 2830 Dairy Drive			City Madison
			State WI
			ZIP Code 53718
Phone # (include area code) (608) 216-7341	Fax # (include area code) (608) 224-2839	Email eoelkers@scsengineers.com	

#### Property Owner (if different from requester)

Contact Last Name Rolfs	First Dan	MI	Organization/ Business Name City of Madison - Office or Real Estate Services
Mailing Address P.O. Box 2983			City Madison
			State WI
			ZIP Code 53701-2983
Phone # (include area code) (608) 267-8722	Fax # (include area code) (608) 261-6126	Email droarfs@cityofmadison.com	

### Section 2. Property Information

Property Name Garver Feed	FID No. (if known) 113264250
BRRTS No. (if known) 03-13-252719	Parcel Identification Number 071005400967, 071005400983, 071005400933
Street Address 3244 Atwood Ave. / 109 & 115 South Fair Oaks Ave.	City Madison
	State WI
	ZIP Code 53704
County Dane	Municipality where the Property is located <input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village of Madison
	Property is composed of: <input type="radio"/> Single tax parcel <input checked="" type="radio"/> Multiple tax parcels
	Property Size Acres 26

**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

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1. Is a response needed by a specific date? (e.g., Property closing date) Note: Most requests are completed within 60 days. Please plan accordingly.

No  Yes

Date requested by: 05/04/2018

Reason: Redevelopment

2. Is the "Requester" enrolled as a Voluntary Party in the Voluntary Party Liability Exemption (VPLE) program?

No. **Include the fee that is required for your request in Section 3, 4 or 5.**

Yes. **Do not include a separate fee.** This request will be billed separately through the VPLE Program.

Fill out the information in Section 3, 4 or 5 which corresponds with the type of request:

**Section 3. Technical Assistance or Post-Closure Modifications;**

**Section 4. Liability Clarification; or Section 5. Specialized Agreement.**

**Section 3. Request for Technical Assistance or Post-Closure Modification**

Select the type of technical assistance requested: [Numbers in brackets are for WI DNR Use]

- No Further Action Letter (NFA) (Immediate Actions) - NR 708.09, [183] - **Include a fee of \$350.** Use for a written response to an immediate action after a discharge of a hazardous substance occurs. Generally, these are for a one-time spill event.
- Review of Site Investigation Work Plan - NR 716.09, [135] - **Include a fee of \$700.**
- Review of Site Investigation Report - NR 716.15, [137] - **Include a fee of \$1050.**
- Approval of a Site-Specific Soil Cleanup Standard - NR 720.10 or 12, [67] - **Include a fee of \$1050.**
- Review of a Remedial Action Options Report - NR 722.13, [143] - **Include a fee of \$1050.**
- Review of a Remedial Action Design Report - NR 724.09, [148] - **Include a fee of \$1050.**
- Review of a Remedial Action Documentation Report - NR 724.15, [152] - **Include a fee of \$350**
- Review of a Long-term Monitoring Plan - NR 724.17, [25] - **Include a fee of \$425.**
- Review of an Operation and Maintenance Plan - NR 724.13, [192] - **Include a fee of \$425.**

Other Technical Assistance - s. 292.55, Wis. Stats. [97] (For request to build on an abandoned landfill use Form 4400-226)

- Schedule a Technical Assistance Meeting - **Include a fee of \$700.**
- Hazardous Waste Determination - **Include a fee of \$700.**
- Other Technical Assistance - **Include a fee of \$700.** Explain your request in an attachment.

Post-Closure Modifications - NR 727, [181]

- Post-Closure Modifications: Modification to Property boundaries and/or continuing obligations of a closed site or Property; sites may be on the GIS Registry. This also includes removal of a site or Property from the GIS Registry. **Include a fee of \$1050, and:**
  - Include a fee of \$300 for sites with residual soil contamination; and
  - Include a fee of \$350 for sites with residual groundwater contamination, monitoring wells or for vapor intrusion continuing obligations.

Attach a description of the changes you are proposing, and documentation as to why the changes are needed (if the change to a Property, site or continuing obligation will result in revised maps, maintenance plans or photographs, those documents may be submitted later in the approval process, on a case-by-case basis).

**Skip Sections 4 and 5 if the technical assistance you are requesting is listed above and complete Sections 6 and 7 of this form.**



Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 4 of 6

**Section 5. Request for a Specialized Agreement**

Select the type of agreement needed. Include the appropriate draft agreements and supporting materials. Complete Sections 6 and 7 of this form. More information and model draft agreements are available at: [dnr.wi.gov/topic/Brownfields/lgu.html#tabx4](http://dnr.wi.gov/topic/Brownfields/lgu.html#tabx4).

Tax cancellation agreement - s. 75.105(2)(d), Wis. Stats. [654]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-105agrmt.pdf)).

Agreement for assignment of tax foreclosure judgement - s.75.106, Wis. Stats. [666]

❖ **Include a fee of \$700, and the information listed below:**

- (1) Phase I and II Environmental Site Assessment Reports,
- (2) a copy of the Property deed with the correct legal description; and,
- (3) a draft 75.105 agreement based on the DNR's model ([dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf](http://dnr.wi.gov/topic/brownfields/documents/mod75-106agrmt.pdf)).

Negotiated agreement - Enforceable contract for non-emergency remediation - s. 292.11(7)(d) and (e), Wis. Stats. [630]

❖ **Include a fee of \$1400, and the information listed below:**

- (1) a draft schedule for remediation; and,
- (2) the name, mailing address, phone and email for each party to the agreement.

**Section 6. Other Information Submitted**

Identify all materials that are included with this request.

**Include one copy of any document from any state agency files that you want the Department to review as part of this request. The person submitting this request is responsible for contacting other state agencies to obtain appropriate reports or information.**

Phase I Environmental Site Assessment Report - Date: \_\_\_\_\_

Phase II Environmental Site Assessment Report - Date: \_\_\_\_\_

Legal Description of Property (required for all liability requests and specialized agreements)

Map of the Property (required for all liability requests and specialized agreements)

Analytical results of the following sampled media: Select all that apply and include date of collection.

Groundwater     Soil     Sediment     Other medium - Describe: \_\_\_\_\_

Date of Collection: \_\_\_\_\_

A copy of the closure letter and submittal materials

Draft tax cancellation agreement

Draft agreement for assignment of tax foreclosure judgment

Other report(s) or information - Describe: Material Management Plan & Historical Fill Site Exemption Request

For Property with newly identified discharges of hazardous substances only: Has a notification of a discharge of a hazardous substance been sent to the DNR as required by s. NR 706.05(1)(b), Wis. Adm. Code?

Yes - Date (if known): \_\_\_\_\_

No

Note: The Notification for Hazardous Substance Discharge (non-emergency) form is available at: [dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf](http://dnr.wi.gov/files/PDF/forms/4400/4400-225.pdf).

**Technical Assistance, Environmental Liability  
Clarification or Post-Closure Modification Request**

Form 4400-237 (R 9/15)

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**Section 7. Certification by the Person who completed this form**

I am the person submitting this request (requester)

I prepared this request for: Brynn Bemis

Requester Name

I certify that I am familiar with the information submitted on this request, and that the information on and included with this request is true, accurate and complete to the best of my knowledge. I also certify I have the legal authority and the applicant's permission to make this request.

*Eric Felton*

Signature

*5/17/2018*

Date Signed

*Senior Project Manager*

Title

*608 216 7341*

Telephone Number (include area code)

# Technical Assistance, Environmental Liability Clarification or Post-Closure Modification Request

Form 4400-237 (R 9/15)

Page 6 of 6

**Section 8. DNR Contacts and Addresses for Request Submittals**

Send or deliver one paper copy and one electronic copy on a compact disk of the completed request, supporting materials, and fee to the region where the property is located to the address below. Contact a DNR regional brownfields specialist with any questions about this form or a specific situation involving a contaminated property. For electronic document submittal requirements see: <http://dnr.wi.gov/files/PDF/pubs/rr/RR690.pdf>.

**DNR NORTHERN REGION**  
Attn: RR Program Assistant  
Department of Natural Resources  
223 E Steinfest Rd Antigo, WI 54409

**DNR NORTHEAST REGION**  
Attn: RR Program Assistant  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay WI 54313

**DNR SOUTH CENTRAL REGION**  
Attn: RR Program Assistant  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg WI 53711

**DNR SOUTHEAST REGION**  
Attn: RR Program Assistant  
Department of Natural Resources  
2300 North Martin Luther King Drive  
Milwaukee WI 53212

**DNR WEST CENTRAL REGION**  
Attn: RR Program Assistant  
Department of Natural Resources  
1300 Clairemont Ave.  
Eau Claire WI 54702

## The State of Wisconsin Department of Natural Resources

● *Region Offices*



*Note: These are the Remediation and Redevelopment Program's designated regions. Other DNR program regional boundaries may be different.*

DNR Use Only			
Date Received	Date Assigned	BRRTS Activity Code	BRRTS No. (if used)
DNR Reviewer		Comments	
Fee Enclosed? <input type="radio"/> Yes <input type="radio"/> No	Fee Amount \$	Date Additional Information Requested	Date Requested for DNR Response Letter
Date Approved	Final Determination		

## **APPENDIX B**

Development at Historic Fill Site or Licensed Landfill Exemption Application  
(Form 4400-226)

**Notice:** Use of this form is required by the DNR for any application to develop at a historic fill site or licensed landfill pursuant to secs. NR 506.085 and NR 500.08(4), Wis. Adm. Code. The Department will not consider your application unless you provide complete information requested. Personally identifiable information collected will be used to process your application and will also be accessible by request under Wisconsin's Open Records law [ss.19.31 - 19.39, Wis. Stats.]

**Instructions:** See *Development at Historic Fill Sites and Licensed Landfills: What you need to know* (PUB-RR-683, November 2013) for detailed instructions.

- All Exemption Application materials should be sent to the region where the site is located, as listed on page 6.
- Include \$700 fee payment with this application. If the site is a licensed landfill and the Waste and Materials Management program is doing the review, submit no fee now. You will be sent an invoice upon receipt of this application.
- Determine the appropriate exemption type for the site and check appropriate box below.
- Provide complete information requested for each type of exemption. Include the following attachments:  
**Required:** Summary of Existing and Potential Impacts described in Section V as an attachment, under the seal of a professional engineer or geologist registered to practice in Wisconsin.

**Optional:** Site Visit Summary Comments (Section IX) including any photos, sketches or site visit notes.

**Exemption Type**

- Remediation and Redevelopment Program NR 700 Rule Series Process Exemption:** Site with remedial actions conducted in accordance with NR 700 series  
**Required:** Sections I - VI **Optional:** Sections VII - X
- Case-by-Case Evaluation:** Sites with anticipated environmental impacts or wastes of special concerns  
**Required:** Sections I - VI **Optional:** Sections VII - X
- Expedited Exemption:** Site with no expected environmental impact  
**Required:** Sections I - VI **and** Form 4400-226A Expedited Exemption Application **Optional:** Sections VII - X

**I. Applicant Information**

Owner - Last Name	First	MI	Phone Number (include area code)
City of Madison Parks			(608) 266-4711
Contact Name (if different)	Eric Knepp		
Street Address	City	State	ZIP Code
210 Martin Luther King Jr. Blvd., Room 104	Madison	WI	53703
Developer - Last Name	First	MI	Phone Number (include area code)
Garver Feed Mill, LLC			(608) 577-1150
Street Address	City	State	ZIP Code
29 Farwell Street	Madison	WI	53704

**II. Site Name and Location**

Site Name	Location / Address
Former Garver Feed Mill	3244 Atwood Ave / 109 & 115 South Fair Oaks Avenue
Is the site known by another name(s)? <input checked="" type="radio"/> Yes <input type="radio"/> No <input type="radio"/> Unknown	<input checked="" type="radio"/> City <input type="radio"/> Town <input type="radio"/> Village
If yes, provide name: MADISON CTY - GARVER FEED	of Madison
Does the site have a license number? <input type="radio"/> Yes <input checked="" type="radio"/> No <input type="radio"/> Unknown	State ZIP Code County
If yes, License Number:	WI 53704 Dane

**A. Attach a map with site location and limits of fill/waste disposal area.**

<b>B. Global Positioning System Coordinates</b>	Describe method for collecting GPS Coordinates
Latitude DEG MIN SEC Longitude DEG MIN SEC	BRRTS Sites Map
43   05   44.0873 N     -89   20   05.0932 W	

Program Lead, Fee Status and Regulatory ID Numbers (This area for DNR use only)			
<input type="radio"/> Waste Management Bureau <input type="radio"/> Remediation and Redevelopment Bureau - Exemption is part of remedy under NR 700 program <input type="radio"/> Fee already paid for review of remedial design report. <input type="radio"/> Review of remedial design report not requested and payment is attached.		<input type="checkbox"/> Payment Attached Amount \$	
Hazardous Waste Facility License ID #: (5 digits)	DNR FID #: (9 digits)	USEPA ID #: (used for both RCRA & CERCLIS #s) (WI+Alpha+9 digits)	
Region	Project Manager	Telephone Number	

## Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

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### III. Site Ownership History

Previous Owner - Last Name City of Madison EDD	First	MI	Telephone Number (608) 267-4933
Street Address 30 W. Mifflin Street, Suite 502-507	City Madison	State WI	ZIP Code 53703
Responsible Municipal / Private Operator - Last Name (if applicable) Rofls	First Daniel	MI	Telephone Number (608) 267-8722
Street Address PO Box 2983	City Madison	State WI	ZIP Code 53701-2983

### IV. Evaluation of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.

- A. Analytical data for the following media have been collected and/or examined before completing this application:
1. Groundwater:                       Yes  No
  2. Soil:                                       Yes  No
  3. Surface water / sediment:         Yes  No
  4. Air:                                         Yes  No
  5. Methane or other explosive gases:  Yes  No
- B. Based on known or suspected sources and wastes, their physical characteristics, containment and geologic environment, do you suspect a release of pollutants to the environment?
- Yes:     Groundwater     Soil             Surface Water / Sediment     Methane or Other Explosive Gases
- No
- C. If there is NOT a likelihood of a release of pollutants or evidence of a release, would the impact of the proposed development be likely to cause a release to the environment?
- Yes: If yes, be sure to summarize actions to be taken to prevent adverse environmental impacts in V. Part C below.
- No

### V. Summary of Existing and Potential Impacts. See Development at Historic Fill Sites and Licensed Landfill: Guidance for Investigation and Development at Historic Fill Sites and Licensed Landfill: Potential Problems and Considerations.


Describe the following in an attached narrative under the signature of a qualified professional. Organize, label and package as listed below.

- A. Existing Site Conditions
  1. existing site conditions including waste types,
  2. potential for impacts, and
  3. evaluation of existing impacts.
- B. Proposed Development Summary. Include explanation for overall site decision.
- C. Summary of actions to be taken and engineering controls that will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety.

### VI. Certification of Application Information

I certify that information in this application and all its attachments is true and correct and in conformity with applicable Wis. statutes.

Print / Type Name of Applicant  
 City of Madison, Eric M. Knepp

Applicant Signature                       Date Signed 4/25/18

Development at Historic Fill Site or Licensed Landfill Exemption Application

Form 4400-226 (R 05/16)

Sections VII - IX are optional for all Applicants.

VII. Current and Historic Type of Waste Disposal Site (Check all that apply)

- Licensed Landfill, Non-approved, Approved, One-time Disposal, Construction / Demolition, Historic Fill Site

Liner: Unlined, Lined, Composite Liner, Other Liner; Clay Liner, Unengineered; Total Landfill Volume: < 50,000 yd³, 50,000-500,000 yd³, > 500,000 yd³

- Does the landfill have a closure plan? Does the landfill have a groundwater monitoring plan? Have groundwater monitoring wells been installed?

Was a cover installed? If no, go to Past Land Uses.

- Composite cap, Layered soil cap with clay barrier, Clay cap, Soil cap - not recompacted clay, Other cover, Unknown

What is the thickness of the cover? < 6 in, 6-12 in, 12-24 in, > 24 in, Unknown

Past Land Uses. (Check all that apply)

- Agricultural co-op, Brush pile, Bulk plant, Coal gas manufacturer, Deer pit, Dry cleaner, Electroplater, Lagoon, Manufacturing Type: Multiple, Old burn pit, Pipeline, RCRA generator, Salvage yard, Service Station, Tannery, Unknown, Other: City of Madison compost site

Date(s) of Site Operation: From 01/01/1900 To 05/23/2017 No. of Years 117

VIII. Waste Information & Geologic Environment. See Development at Historic Fill Sites and Licensed Landfills: Guidance for Investigation

A. Known or Suspected Sources/Wastes. (Check all that apply)

- Abandoned containers, Above ground pipeline or tank, Animal carcasses, Buried drums, Burning of materials, Foundry sand, Industrial accident, Known or suspected hazardous materials, Municipal waste, Paper mill sludge, Transformer, Trees/brush, Surface spills, Fly ash, Demolition/construction waste, Surface impoundment/lagoons, Underground pipeline or tank, Exempted fill, Unknown, Other:

B. Physical Characteristics of Sources/Wastes

- Liquid, Solid, Liquid & Solid, Unknown

**VIII. Waste Information & Geologic Environment (continued)**

C. Waste Containment  Liner  Unknown  Not applicable

Engineered cover

Maintained  Not maintained

Functioning leachate collection & removal system

Functioning & maintained run-off management system

Functioning groundwater monitoring system

D. Soil Type: Estimate distances or determinations based on regional or site specific information.

Regional  Site specific

Clay, silt or other fine grained soils present? (lacustrine, tills, etc.)  Yes  No

At surface?  Yes  No At depth?  Yes  No \_\_\_\_\_ feet

Sand & gravel, coarse grained soils present?  Yes  No

At surface?  Yes  No At depth?  Yes  No \_\_\_\_\_ feet

E. Depth to Groundwater

Regional  Site specific \_\_\_\_\_ 3 feet

F. Direction of Groundwater Flow

Regional  Site specific East direction

G. Depth to Bedrock

Regional  Site specific 115 fcct dcpth direction

H. Bedrock Type

Regional  Site specific  Sandstone  Limestone/Dolomite  Metamorphic/Igneous

**IX. Site Visit**

Conduct a site visit to complete site screening and determine general site conditions, on-site activities and adjacent land use encroachment issues. As appropriate to document the site, take photos, sketch the site and prepare a Site Visit Report.

On-site visit conducted?  Yes  No

General site conditions: Document any observed releases and note whether or not you were able to walk the site. Examples of things to be aware of include the following:

- leachate seeps or evidence of seeps such as stained soil/vegetation
- stressed vegetation as a sign of gas migration to the surface or of leachate seeps;
- quality and coverage of vegetation on the cap;
- odors which may indicate gas migration to the atmosphere;
- erosion of the cap;
- maintenance of positive drainage over the capped area;
- visual desiccation cracks in the cap.

Attach the following to your application:

Photographs, regular or digital  Site sketch  Site Visit Report

Name(s) of Person(s) Conducting Site Visit Eric Oelkers	Date of Site Visit 05/11/2017
--	----------------------------------



**IX. Site Visit (continued)**

A. Adjacent Land Uses. Indicate all directions. (Check all that apply)

<input type="checkbox"/> Agricultural	<input type="checkbox"/> N	<input type="checkbox"/> S	<input type="checkbox"/> E	<input type="checkbox"/> W	<input type="checkbox"/> NE	<input type="checkbox"/> NW	<input type="checkbox"/> SE	<input type="checkbox"/> SW
<input type="checkbox"/> Industrial	<input type="checkbox"/> N	<input type="checkbox"/> S	<input type="checkbox"/> E	<input type="checkbox"/> W	<input type="checkbox"/> NE	<input type="checkbox"/> NW	<input type="checkbox"/> SE	<input type="checkbox"/> SW
<input checked="" type="checkbox"/> Recreational	<input type="checkbox"/> N	<input checked="" type="checkbox"/> S	<input type="checkbox"/> E	<input type="checkbox"/> W	<input type="checkbox"/> NE	<input checked="" type="checkbox"/> NW	<input checked="" type="checkbox"/> SE	<input checked="" type="checkbox"/> SW
<input checked="" type="checkbox"/> Residential	<input checked="" type="checkbox"/> N	<input type="checkbox"/> S	<input checked="" type="checkbox"/> E	<input checked="" type="checkbox"/> W	<input checked="" type="checkbox"/> NE	<input type="checkbox"/> NW	<input checked="" type="checkbox"/> SE	<input checked="" type="checkbox"/> SW
<input type="checkbox"/> Undeveloped	<input type="checkbox"/> N	<input type="checkbox"/> S	<input type="checkbox"/> E	<input type="checkbox"/> W	<input type="checkbox"/> NE	<input type="checkbox"/> NW	<input type="checkbox"/> SE	<input type="checkbox"/> SW
<input checked="" type="checkbox"/> Commercial	<input type="checkbox"/> N	<input type="checkbox"/> S	<input type="checkbox"/> E	<input checked="" type="checkbox"/> W	<input type="checkbox"/> NE	<input checked="" type="checkbox"/> NW	<input type="checkbox"/> SE	<input checked="" type="checkbox"/> SW
<input type="checkbox"/> Other:	<input type="checkbox"/> N	<input type="checkbox"/> S	<input type="checkbox"/> E	<input type="checkbox"/> W	<input type="checkbox"/> NE	<input type="checkbox"/> NW	<input type="checkbox"/> SE	<input type="checkbox"/> SW

B. Potential Groundwater Receptors. Estimate distances. (1 mile = 5,280 ft)

Distance to and direction of nearest municipal well: 1600 feet  > 1/2 mile from the waste \_\_\_\_\_ direction

Distance to and direction of nearest other-than-municipal well: \_\_\_\_\_ feet  > 1/2 mile from the waste \_\_\_\_\_ direction

Distance to and direction of nearest non-community well: \_\_\_\_\_ feet  > 1/2 mile from the waste \_\_\_\_\_ direction

Distance to and direction of nearest private well: \_\_\_\_\_ feet  > 1/2 mile from the waste \_\_\_\_\_ direction

Distance to and direction of nearest private well: \_\_\_\_\_ feet  > 1/2 mile from the waste \_\_\_\_\_ direction

C. Potential For Gas Migration

30 No. of homes within 300 feet of waste (gas migration potential)

200 No. of homes between 300 & 1,000 ft to waste (gas migration potential)

Distance to and direction of nearest building: 0 feet  > 1/2 mile from the waste \_\_\_\_\_ direction

Type of building:  On-site building  Municipal  Residential  Commercial  Industrial  Unknown

D. Potential Surface Water Receptors. Estimate distances.

Creek 50 feet       Drainage ditch: \_\_\_\_\_ feet       Intermittent stream: \_\_\_\_\_ feet

River \_\_\_\_\_ feet       Lake 1500 feet       Wetland: \_\_\_\_\_ feet

E. Based on the site visit, did you visually observe...

1. a release to a surface water body?       Yes       No       Unknown

2. a leachate seep?       Yes       No       Unknown

3. a release to soils?       Yes       No       Unknown

**X. Comments: Use this section to provide comments on any aspect of the site visit. Attach any information or explanations labeled with the appropriate section number to which the material applies.**

See Material Management Plan for more details on site conditions and procedures for management of contaminated materials that may be encountered during construction. See Phase 1 ESA for a more comprehensive description of historical site operations and photos of site conditions as of 2015.

**Region Map**

**NORTHERN REGION**

Remediation & Redevelopment  
Team Supervisor  
Department of Natural Resources  
107 Sutliff Avenue  
Rhineland, WI 54501  
(715) 365-8976

**OR**

Regional Waste Program Manager  
Department of Natural Resources  
107 Sutliff Avenue  
Rhineland WI 54501  
(715) 365-8946

**NORTHEAST REGION**

Remediation & Redevelopment  
Team Supervisor  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
(920) 662-5160

**OR**

Regional Waste Program Manager  
Department of Natural Resources  
2984 Shawano Avenue  
Green Bay, WI 54313-6727  
(920) 662-5120

**SOUTHEAST REGION**

Remediation & Redevelopment  
Team Supervisor  
Department of Natural Resources  
2300 N. Martin Luther King Drive  
Milwaukee, WI 53212  
(414) 263-8561 or (414) 263-8714

**OR**

Regional Waste Program Manager  
Department of Natural Resources  
2300 N. Martin Luther King Drive  
Milwaukee, WI 53212  
(414) 263-8694 or (414) 263-8697

**WEST CENTRAL REGION**

Remediation & Redevelopment  
Team Supervisor  
Department of Natural Resources  
1300 West Clairemont Avenue  
Eau Claire, WI 54701  
(715) 839-3710

**OR**

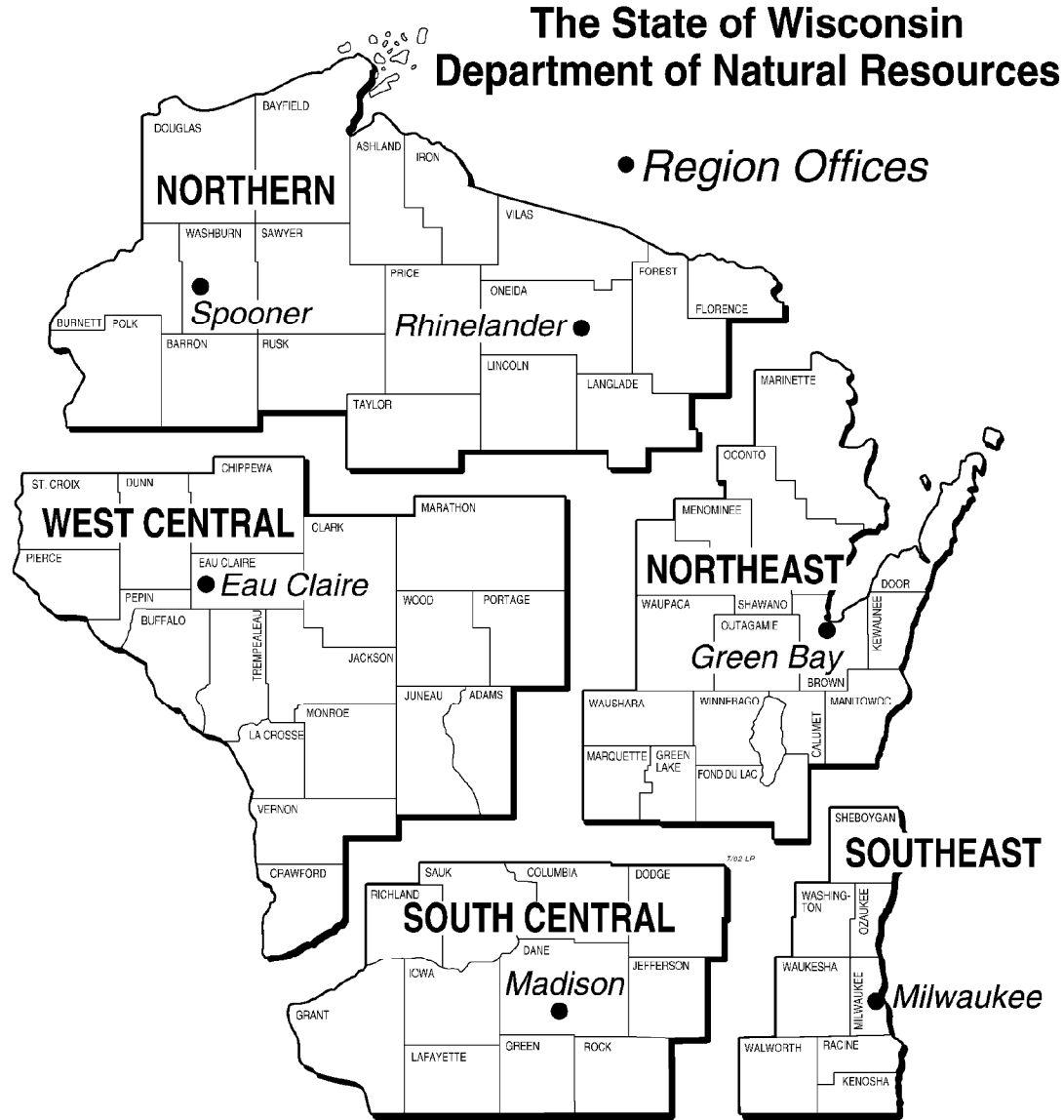
Regional Waste Program Manager  
Department of Natural Resources  
1300 West Clairemont Avenue  
Eau Claire, WI 54701  
(715) 839-3708

**SOUTH CENTRAL REGION**

Remediation & Redevelopment  
Team Supervisor  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg, WI 53711  
(608) 275-3241

**OR**

Regional Waste Program Manager  
Department of Natural Resources  
3911 Fish Hatchery Road  
Fitchburg, WI 53711  
(608) 275-3466



## SCS ENGINEERS

### DEVELOPMENT AT HISTORIC FILL SITE OR LICENSED LANDFILL EXEMPTION APPLICATION

FORMER GARVER FEED MILL PROPERTY  
3244 ATWOOD AVENUE, MADISON, WISCONSIN

#### PART V: SUMMARY OF EXISTING AND POTENTIAL IMPACTS

##### A. Existing Site Conditions

###### 1. Existing Site Conditions Including Waste Types:

The former Garver Feed Mill property includes three tax parcels owned by the City of Madison since the late 1990s. The total property area is approximately 25.9 acres. The portion that is being redeveloped by Garver Feed Mill, LLC consists of the southwestern portion of the property. Most of the former buildings have been removed. Two structures, the Garver Mill and the Garver Cottage, are still present. Olbrich Botanical Gardens has been using portions of the property since the late 1990s.

Historical uses of the property include several industries, including the Garver Supply Company, which produced livestock feed, the Madison Silo Company, a Frito-Lay research facility, and at least 10 additional businesses, several of which appear to have been involved with trucking and transfer. Twenty petroleum storage tanks are registered to the property as closed/removed between 1988 and 2000. Three leaking underground storage tank (LUST) sites have been identified on the property. Two of the LUST sites are closed; one LUST site is open. The businesses on the property were closed by or before the mid-1990s. A rail corridor borders the south side of the property, and several rail spurs have historically been present on the property.

Several environmental investigations have been completed on the former Garver Feed Mill property and on adjacent properties. These investigations have been performed under the following Bureau for Remediation and Redevelopment Tracking System (BRRTS) numbers:

- Madison Cty – Garver Feed: BRRTS #03-13-252719 (open)
- Garver Feed & Supply: BRRTS #03-13-252719 (closed in 1997)
- Madison Farm Structure: BRRTS #03-13-000598 (closed in 1998)
- Kessenichs Ltd: BRRTS #03-13-002675 (closed with Geographic Information System [GIS] Registry for residual soil and groundwater contamination in 2005)
- Starkweather Creek & Maly Rd: BRRTS #02-13-001526 (closed in 1994)



A Phase 1 Environmental Site Assessment (ESA) was performed in 2015. Two recognized environmental conditions (RECs) were identified during the Phase 1 ESA. These were:

- 1) Topographic maps from 1892 and 1906 show marshy land north of Lake Monona along Starkweather Creek, in the area where the property is located. Fill material was likely added to the property to raise the ground prior to development.
- 2) Areas on the south side of the property were developed for industrial use in the early 1900s. A railroad corridor bordered the south side of the property by at least 1892, and at least four rail spurs were on the property by the 1940s. Most of the property was in industrial use by 1980. Twenty petroleum storage tanks are registered to the property as closed/removed between 1988 and 2000. The historic industrial uses of the property, the presence of rail lines on and adjacent to the property, and the records of several former petroleum storage tanks on the property indicate the potential for environmental impacts from industry, leaks from petroleum tanks or rail cars, and the potential for the vacant northern portion of the property to have historically been filled or used for disposal.

Several phases of environmental and geotechnical investigation have been performed at the property. Soil borings and test pits have encountered fill material, including cinders, ash, bricks, asphalt, and ceramics across much of the site. Soil and fill material at the site contain widespread polynuclear aromatic hydrocarbons (PAHs) and metals associated with historic fill material. The source of the fill material and when it was placed at the site is not known. However, this fill material is consistent with other fill material found throughout the Madison isthmus area and is not indicative of this site being an un-licensed or un-registered landfill. Petroleum volatile organic compounds (PVOCs) were also identified in soils in more localized areas and are attributable to former underground storage tanks (USTs).

### **Soil Contamination**

Historic fill material and associated sources of contamination cover the site to a depth of approximately 3 to 12 feet below ground surface (bgs). The fill material contains varying quantities of cinders, ash, brick, wood, metal, concrete, and other materials. The soil analytical results show that most of the site consists of soil and fill materials containing widespread PAHs and limited metals contamination. Smaller areas of PVOC contamination related to USTs. The contamination is associated with the site's historical industrial fill (e.g., cinders and demolition debris) and former USTs. The historic industrial fill was likely deposited on the site at the beginning of the last century as the property was developed. Historical petroleum contamination in soil has largely been remediated, although isolated pockets remain. PAH contamination was detected above NR 720 groundwater, industrial direct contact, and non-industrial direct contact RCLs. RCL exceedances in soil are not uniform throughout the site, consistent with a history of filling with a variety of materials.

### **Groundwater Contamination**

Petroleum contamination greater than NR 140 enforcement standards was detected at GB3 in 2009. This boring was located in an area addressed in a closed LUST case. Trace concentrations of petroleum detected in groundwater at H25-TP6 are also attributable to residual petroleum contamination remaining after remediation activities in this area.

### **2. Potential for Impacts:**

Direct dermal contact with contaminated fill soil, along with ingestion, are potential impacts if the site does not have a direct contact barrier.

Groundwater contamination at the site appears to be limited in degree and extent. There do not appear to be any receptors likely to be impacted by the low levels of residual groundwater contamination remaining at the site. The site is served by the Madison Water Utility. The nearest public water supply well is Madison unit well #8, located approximately 1,600 feet southwest of the site.

### **3. Evaluation of Existing Impacts:**

The existing impacts identified above are similar to those documented throughout the Madison isthmus. The environmental impacts may be readily managed during site redevelopment to minimize or eliminate the potential for human health risks.

### **B. Proposed Development Summary:**

The property will continue to be owned by the City of Madison and a portion of the property will be leased to Garver Feed Mill, LLC for use as an artisan food production facility with “microlodging” units for short-term rental.

The redeveloped portion of the property not covered by the existing mill building and proposed new buildings will be covered with paved driveway and parking areas, sidewalks, landscaping, and lined storm water detention ponds. The new buildings will not have basements. Planned site layout drawings are included in **Appendix C**. The development described above may change slightly as the project is going through the final city approval process.

### **C. Summary of actions to be taken and engineering controls that will prevent or minimize adverse environmental impacts and potential threats to human health and welfare, including worker safety:**

Contaminated fill excavated from the site will be re-used on site as fill, or will be hauled and properly landfilled. Details of soil categorization for on-site reuse or landfill disposal are included in the Material Management Plan. Contaminated fill re-used on site will be placed

above the water table and will be covered with 1 foot of clean soil, pavement, or buildings. Excavation will be performed in conjunction with site redevelopment.

The observed depth to groundwater at the site is approximately 5 feet bgs. Large-scale dewatering is not anticipated during development activities; however, dewatering of utility trenches and excavations for sewer lift stations will be required. SCS has obtained permits from both the city of Madison to discharge lightly contaminated water to the sanitary sewer system and from Wisconsin Department of Natural Resources to discharge clean water from the ponds to Starkweather Creek with coverage under a Wisconsin Pollutant Discharge Elimination System general permit.

Vapor intrusion is not anticipated to be a significant concern. Testing completed to date has shown that vapor intrusion is not a concern for the existing mill building. Chlorinated VOCs have not been detected in the soil or groundwater at the site. We believe that standard vapor barrier and construction practices will be sufficient protection against incidental vapor migration into the building.

"I, Eric Oelkers, hereby certify that I am a hydrogeologist as that term is defined in s. NR 712.03 (1), Wis. Adm. Code, am registered in accordance with the requirements of ch. GHSS 2, Wis. Adm. Code, or licensed in accordance with the requirements of ch. GHSS 3, Wis. Adm. Code, and that, to the best of my knowledge, all of the information contained in this document is correct and the document was prepared in compliance with all applicable requirements in chs. NR 700 to 726, Wis. Adm. Code."

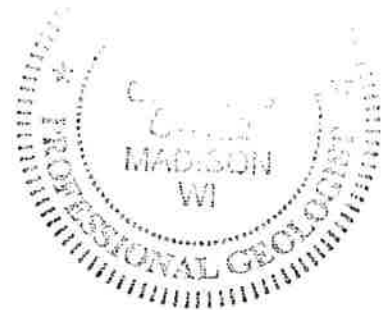
Eric Oelkers

Signature

Senior Project Manager

Title

Stamp

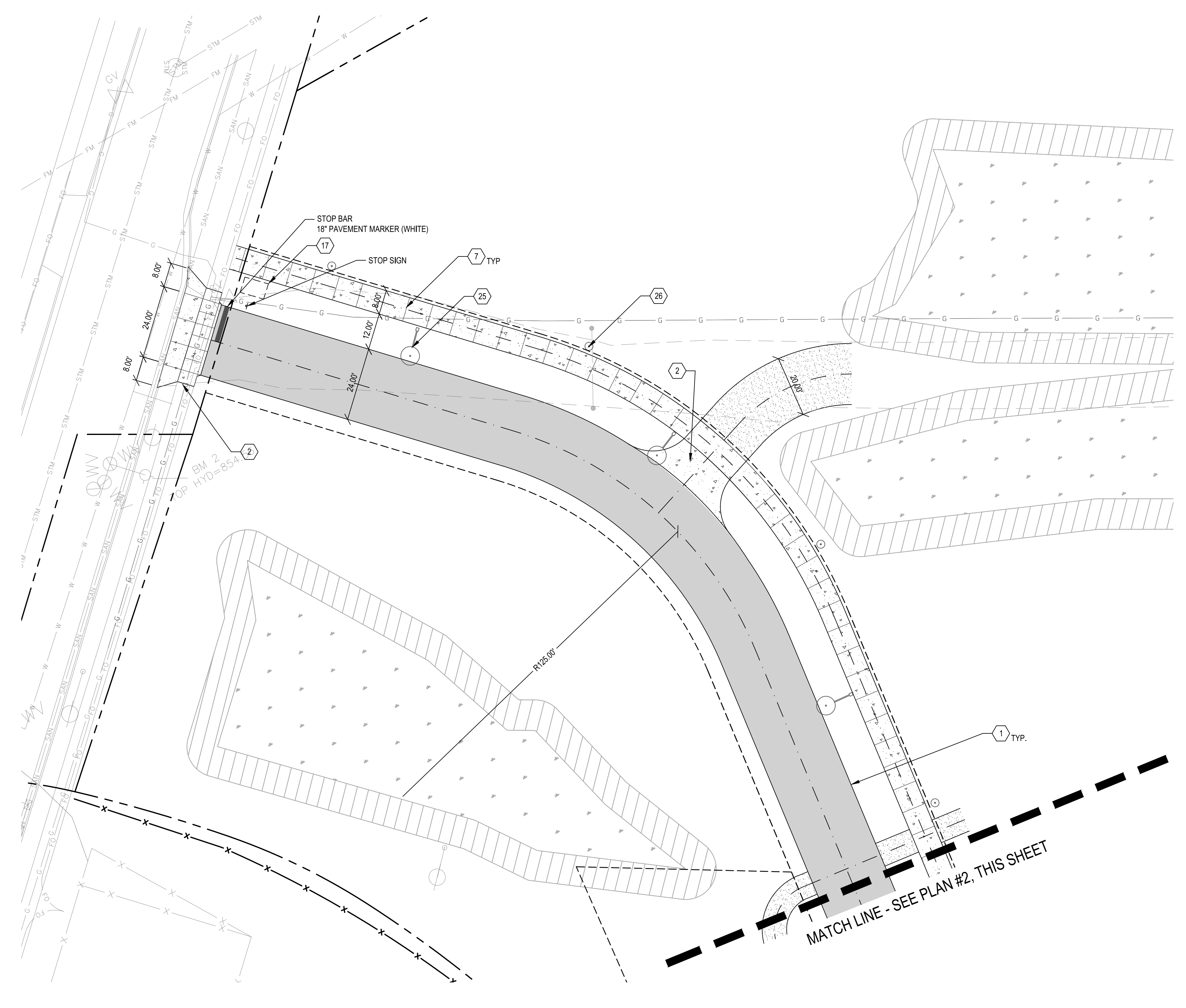


MDB/AJR/EO

## **APPENDIX C**

Redevelopment Plans and Existing Site Conditions

FILE: P:\2017\000\040\01\SchA\2017-C200.dwg USER: kwash DATE: Sat, 12/20/17 TIME: 03:01:40



1 LAYOUT AND MATERIALS PLAN

SCALE: 1" = 20'

2 LAYOUT AND MATERIALS PLAN

SCALE: 1" = 20'

### SHEET NOTES

- A. SEE C001 FOR OVERALL SITE DEVELOPMENT PLAN
- B. SEE V100 FOR CSM BOUNDARY OVERVIEW

### KEYED NOTES

- |    |   |
|----|---|
| 1  | ASPHALT PAVING                            |
| 2  | CONCRETE PAVING                           |
| 3  | CONCRETE PAVING W/ INTEGRAL COLOR         |
| 4  | AGGREGATE SURFACING                       |
| 5  | STAMPED CONC. PAVING 1: W/ INTEGRAL COLOR |
| 6  | STAMPED CONC. PAVING 2: W/ INTEGRAL COLOR |
| 7  | CONTROL JOINT                             |
| 8  | CONCRETE CURB + GUTTER                    |
| 9  | ADA PARKING STALL                         |
| 10 | BIKE RACK                                 |
| 11 | CORRUGATED METAL FENCE                    |
| 12 | GABION WALL                               |
| 13 | TREE BENCH                                |
| 14 | WOOD BENCH                                |
| 15 | PODIUM PLANTER                            |
| 16 | BOLLARD                                   |
| 17 | FUTURE ENTRY SIGNAGE                      |
| 18 | SCREEN WALL                               |
| 19 | STORMWATER MANAGEMENT AREA                |
| 20 | TRASH ENCLOSURE                           |
| 21 | BICYCLE STATION                           |
| 22 | LOADING AREA                              |
| 23 | FUTURE MICRO LODGE LOCATIONS              |
| 24 | EMERGENCY GENERATOR                       |
| 25 | LIGHT TYPE 1. SEE ELECTRICAL PLANS.       |
| 26 | LIGHT TYPE 2. SEE ELECTRICAL PLANS.       |

**GARVER** Madison, Wisconsin  
 3241 GARVER GREEN  
 MADISON, WI 53704

Owner:  
 GARVER FEED MILL LLC  
 1030 W. Chicago Avenue Ste. 200  
 Chicago, IL 60642

**BAUM REVISION**  
 real estate development

**SMITHGROUPJJR**

TKWA  
 THE KIBALA WASKIND ARCHITECTS

**STRUCTURAL integrity**

**design coalition**  
 Architects • Madison, WI

**BACHMANN**  
 CONSTRUCTION

ISSUED FOR	REV	DATE
S.I.P. REVISIONS		5.23.2017

SEALS AND SIGNATURES

*NOT FOR CONSTRUCTION*



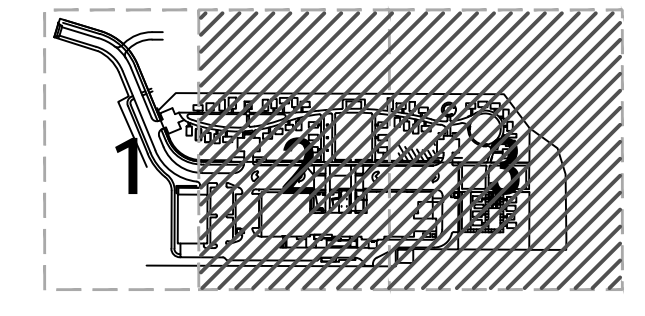
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SCALE:  
PROJECT NUMBER 20737.000

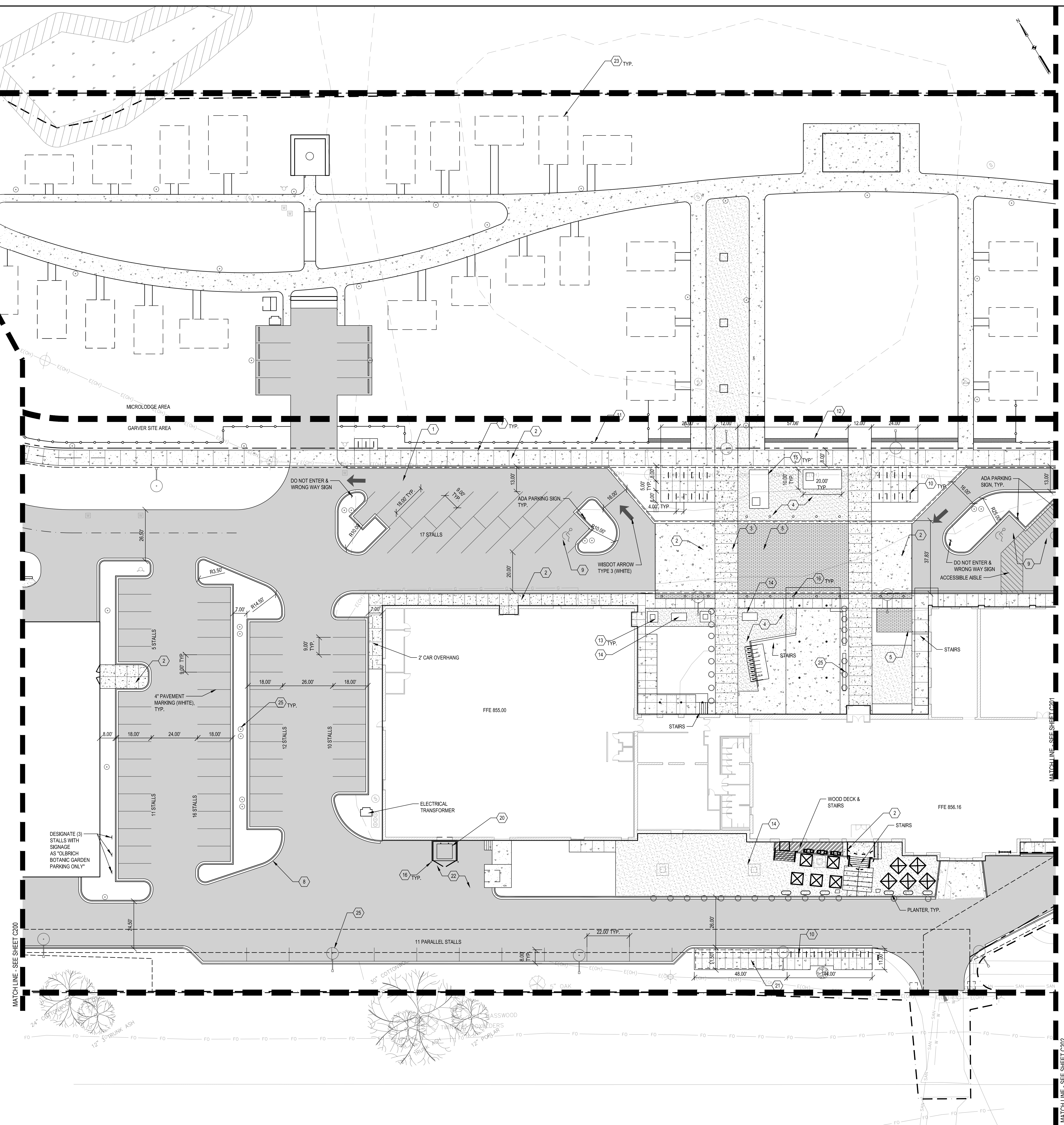
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### KEYMAP





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SHEET NOTES

- A. SEE C001 FOR OVERALL SITE DEVELOPMENT PLAN
- B. SEE V100 FOR CSM BOUNDARY OVERVIEW

KEYED NOTES

- 1 ASPHALT PAVING
- 2 CONCRETE PAVING
- 3 CONCRETE PAVING W/ INTEGRAL COLOR
- 4 AGGREGATE SURFACING
- 5 STAMPED CONC. PAVING 1: W/ INTEGRAL COLOR
- 6 STAMPED CONC. PAVING 2: W/ INTEGRAL COLOR
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- 9 ADA PARKING STALL
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- 11 CORRUGATED METAL FENCE
- 12 GABION WALL
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- 14 WOOD BENCH
- 15 PODIUM PLANTER
- 16 BOLLARD
- 17 FUTURE ENTRY SIGNAGE
- 18 SCREEN WALL
- 19 STORMWATER MANAGEMENT AREA
- 20 TRASH ENCLOSURE
- 21 BICYCLE STATION
- 22 LOADING AREA
- 23 FUTURE MICRO LODGE LOCATIONS
- 24 EMERGENCY GENERATOR
- 25 LIGHT TYPE 1. SEE ELECTRICAL PLANS.
- 26 LIGHT TYPE 2. SEE ELECTRICAL PLANS.

**GARVER**  
Madison, Wisconsin  
FEED MILL

3241 GARVER GREEN  
MADISON, WI 53704  
Owner:  
GARVER FEED MILL LLC  
1030 W. Chicago Avenue Ste. 200  
Chicago, IL 60642

**BAUM REVISION**  
real estate development

**SMITHGROUP JJR**

Tk  
WA  
THE KIMBA WASKARDI ARCHITECTS

STRUCTURAL  
**integrity**

design coalition  
Architects • Madison, WI

**BACHMANN**  
CONSTRUCTION

ISSUED FOR	REV	DATE
S.I.P. REVISIONS		5.23.2017

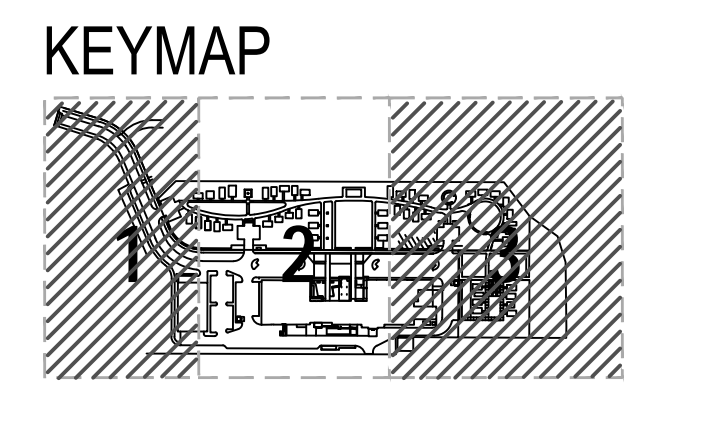
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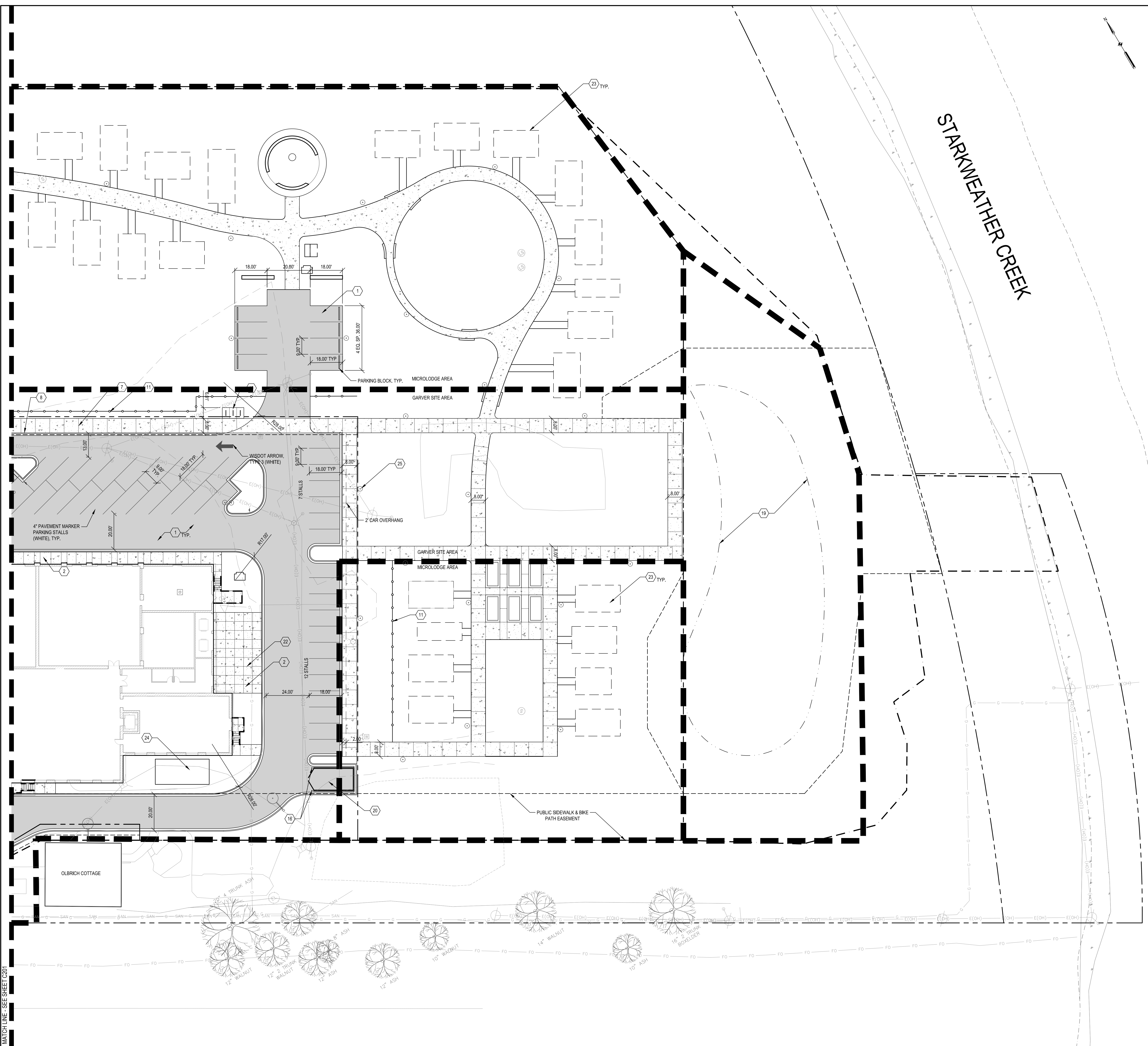


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LAYOUT AND MATERIALS PLAN

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PROJECT NUMBER C201  
DRAWING NUMBER



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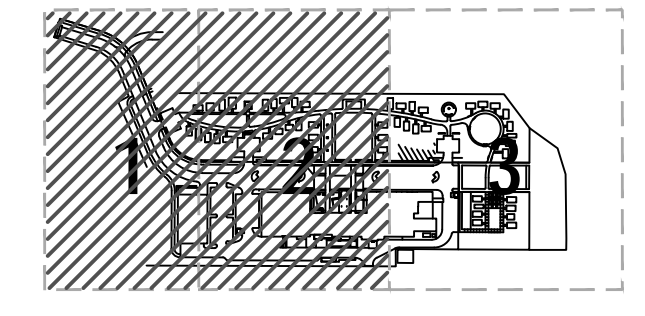
### SHEET NOTES

- A. SEE C201 FOR OVERALL SITE DEVELOPMENT PLAN
- B. SEE V100 FOR CSM BOUNDARY OVERVIEW

### KEYED NOTES

- 1 ASPHALT PAVING
- 2 CONCRETE PAVING
- 3 CONCRETE PAVING W/ INTEGRAL COLOR
- 4 AGGREGATE SURFACING
- 5 STAMPED CONC. PAVING 1; W/ INTEGRAL COLOR
- 6 STAMPED CONC. PAVING 2; W/ INTEGRAL COLOR
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- 24 EMERGENCY GENERATOR
- 25 LIGHT TYPE 1. SEE ELECTRICAL PLANS.
- 26 LIGHT TYPE 2. SEE ELECTRICAL PLANS.

### KEYMAP



3241 GARVER GREEN  
 MADISON, WI 53704  
 Owner:  
 GARVER FEED MILL LLC  
 1030 W. Chicago Avenue Ste. 200  
 Chicago, IL 60642



**SMITHGROUP JJR**



**design coalition**  
 Architects • Madison, WI



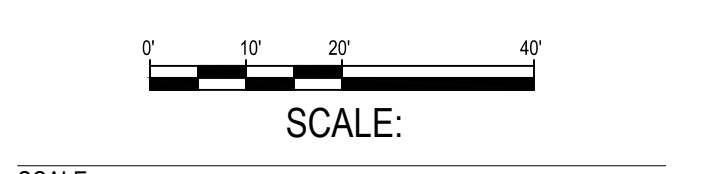
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SEALS AND SIGNATURES

NOT FOR CONSTRUCTION



DRAWING TITLE  
**LAYOUT AND MATERIALS PLAN**



SCALE: 20737.000  
 PROJECT NUMBER: C202  
 DRAWING NUMBER:

NOT FOR CONSTRUCTION



**SHEET NOTES**

- PLUGS SHALL BE PLANTED IN GROUPS OF 20-30 PLANTS OF THE SAME SPECIES AT 18" O.C.
- SEE SHEET C503 FOR PLANT MATERIALS SCHEDULE

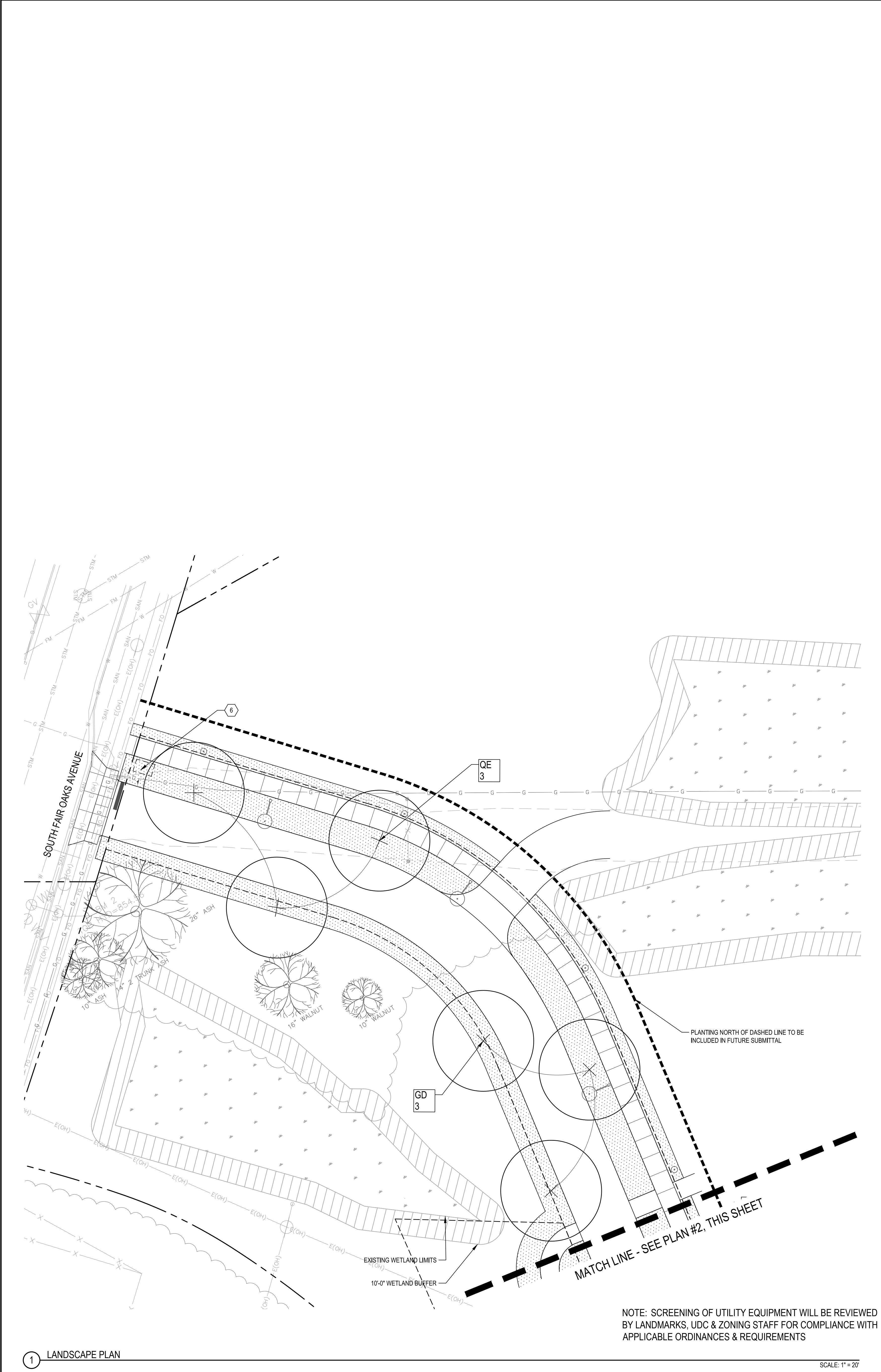
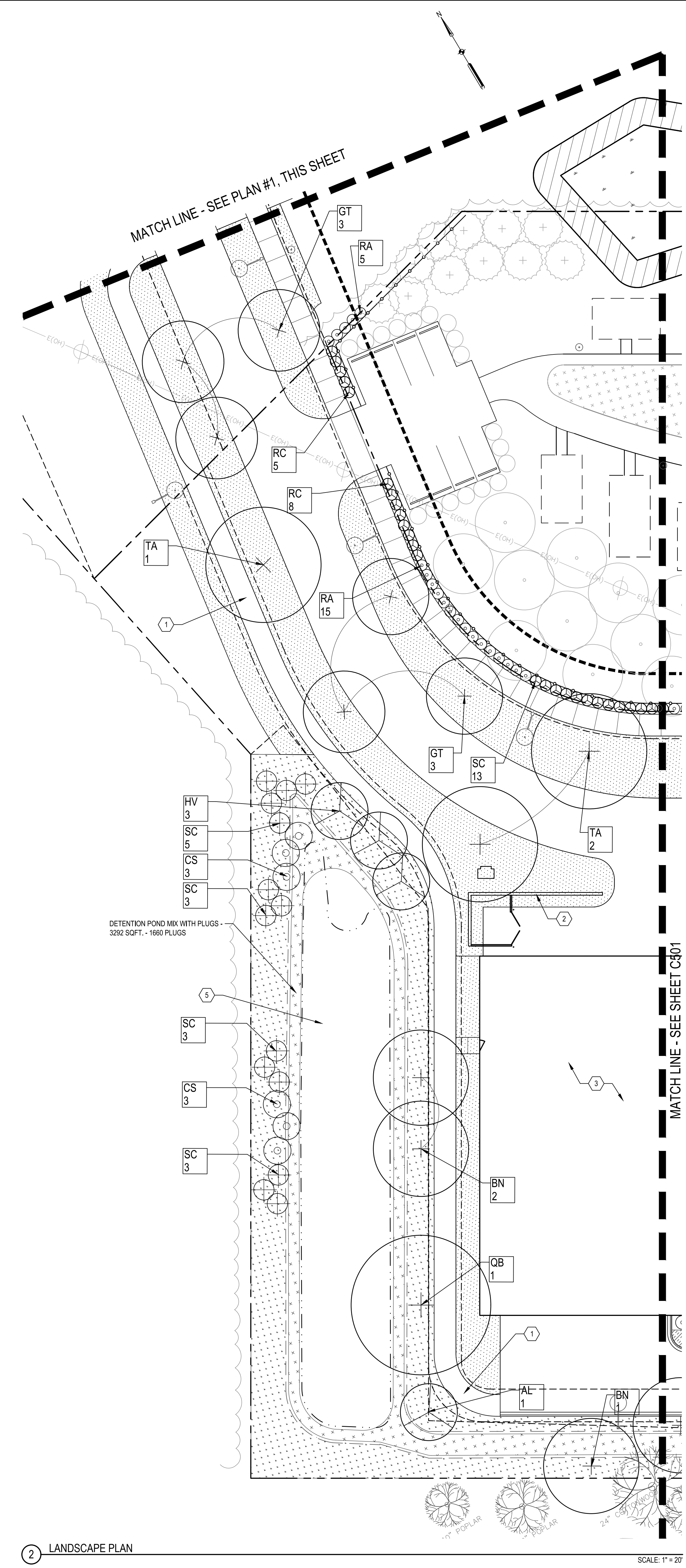
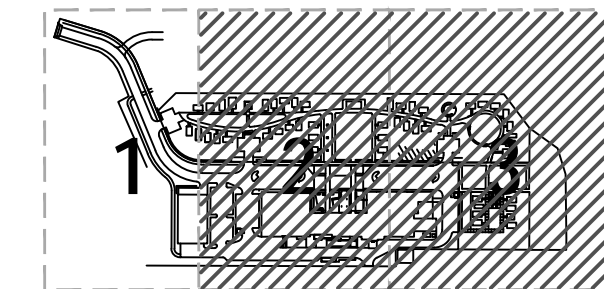
**LEGEND**

- EXISTING VEGETATION TO REMAIN
- EXISTING TREE
- DECIDUOUS SHADE TREE
- CONIFEROUS EVERGREEN TREE
- ORNAMENTAL TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- LAWN SEED MIX
- DETENTION POND SEED MIX
- DETENTION POND PERENNIAL PLUGS
- PERENNIAL / GROUND COVER / ORNAMENTAL GRASS
- PARKING LIGHT
- PEDESTRIAN SCALE LIGHT
- LIGHTING BOLLARD

**KEYED NOTES**

- 1 COMPACTED AGGREGATE MAINTENANCE PATH
- 2 SIGN WALL
- 3 UNHEATED STORAGE BUILDING
- 4 FUTURE MICRO LODGE LOCATIONS
- 5 STORMWATER MANAGEMENT AREA
- 6 FUTURE PROJECT SIGNAGE

**KEYMAP**



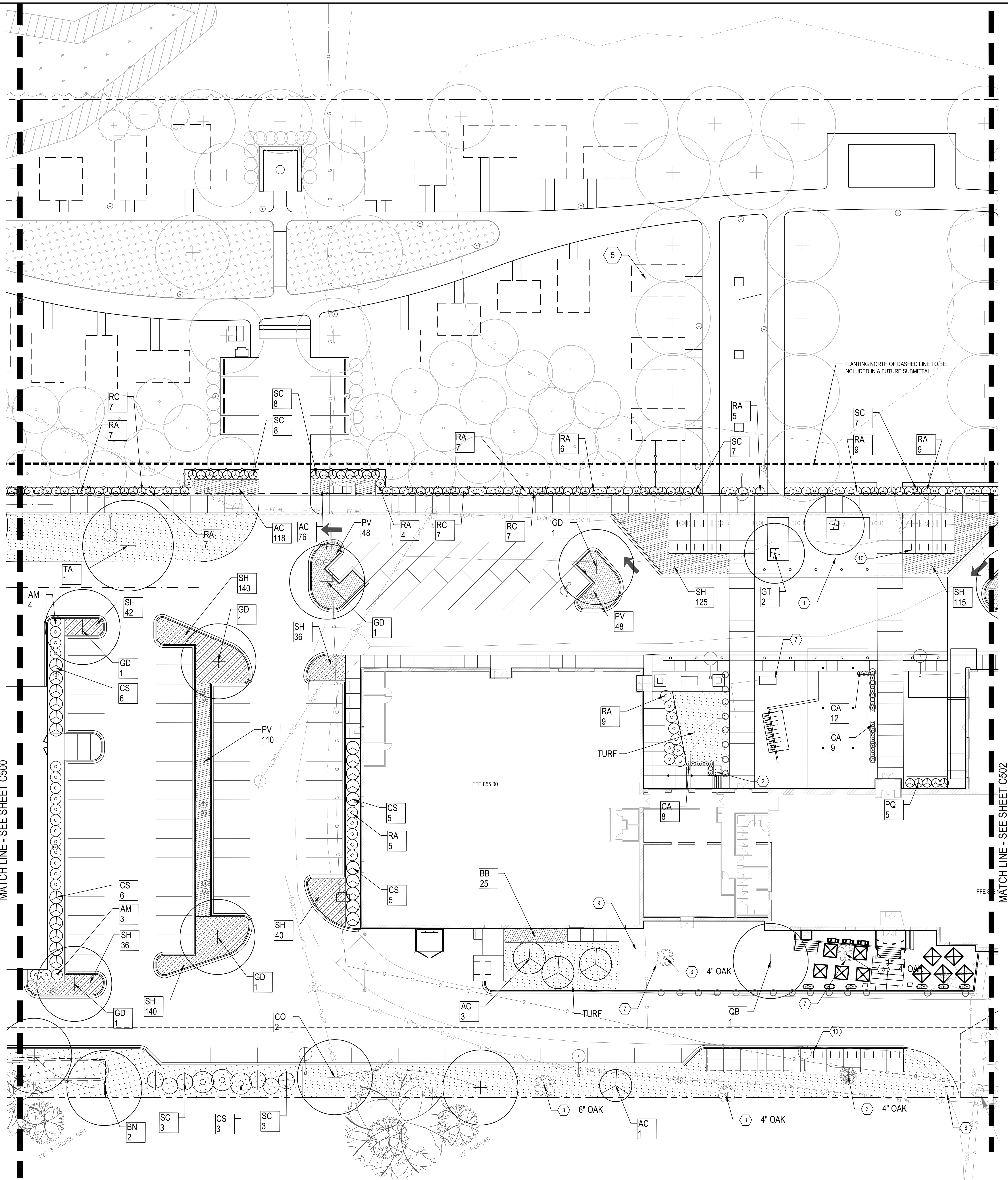
NOTE: SCREENING OF UTILITY EQUIPMENT WILL BE REVIEWED BY LANDMARKS, UDC & ZONING STAFF FOR COMPLIANCE WITH APPLICABLE ORDINANCES & REQUIREMENTS

1 LANDSCAPE PLAN

2 LANDSCAPE PLAN

SCALE: 1" = 20'

SCALE: 1" = 20'



MATCH LINE - SEE SHEET C500

MATCH LINE - SEE SHEET C502

NOTE: SCREENING OF UTILITY EQUIPMENT WILL BE REVIEWED BY LANDMARKS, UDC & ZONING STAFF FOR COMPLIANCE WITH APPLICABLE ORDINANCES & REQUIREMENTS

**SHEET NOTES**

- 1. SEE SHEET C503 FOR PLANT MATERIALS SCHEDULE

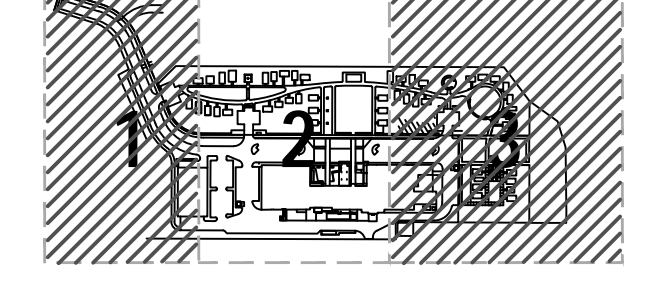
**LEGEND**

- EXISTING VEGETATION TO REMAIN
- EXISTING TREE
- DECIDUOUS SHADE TREE
- CONIFEROUS EVERGREEN TREE
- ORNAMENTAL TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- LAWN SEED MIX
- DETENTION POND SEED MIX
- DETENTION POND PERENNIAL PLUGS
- PERENNIAL / GROUNDCOVER / ORNAMENTAL GRASS
- PARKING LIGHT
- PEDESTRIAN SCALE LIGHT
- LIGHTING BOLLARD

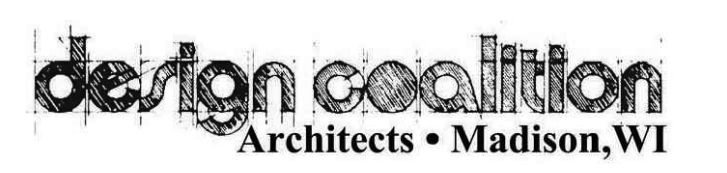
**KEYED NOTES**

- 1 CIP CONCRETE PLANTER WITH BOARDFORM FINISH
- 2 METAL TRELLIS OVERHEAD (SEE ARCH)
- 3 EXISTING OAK TREE TO REMAIN
- 4 UNHEATED STORAGE BUILDING
- 5 FUTURE MICRO LODGE LOCATIONS
- 6 SODDED LAWN
- 7 BENCH
- 8 PROJECT SIGNAGE
- 9 VERTICAL BIKE RACK
- 10 BIKE RACK

**KEYMAP**



3241 GARVER GREEN  
MADISON, WI 53704  
Owner: GARVER FEED MILL LLC  
1030 W. Chicago Avenue Ste. 200  
Chicago, IL 60642



ISSUED FOR	REV	DATE
SUNLIFE 2016 UDC COMMENTS	#	20160116

SEALS AND SIGNATURES

NOT FOR CONSTRUCTION

KEY PLAN



DRAWING TITLE  
**LANDSCAPE PLAN**

SCALE: 0 10' 20' 40'

PROJECT NUMBER 20737.000

DRAWING NUMBER **C501**



**SMITHGROUPJJR**



**design coalition**  
Architects • Madison, WI



ISSUED FOR: **SUNLEIGH 2016 UDC COMMENTS** REV: DATE: **7/20/2016**

SEALS AND SIGNATURES

*NOT FOR CONSTRUCTION*

KEY PLAN



DRAWING TITLE  
**LANDSCAPE PLAN**

SCALE: 0 10' 20' 40'

PROJECT NUMBER: 20737.000

DRAWING NUMBER: **C502**

**SHEET NOTES**

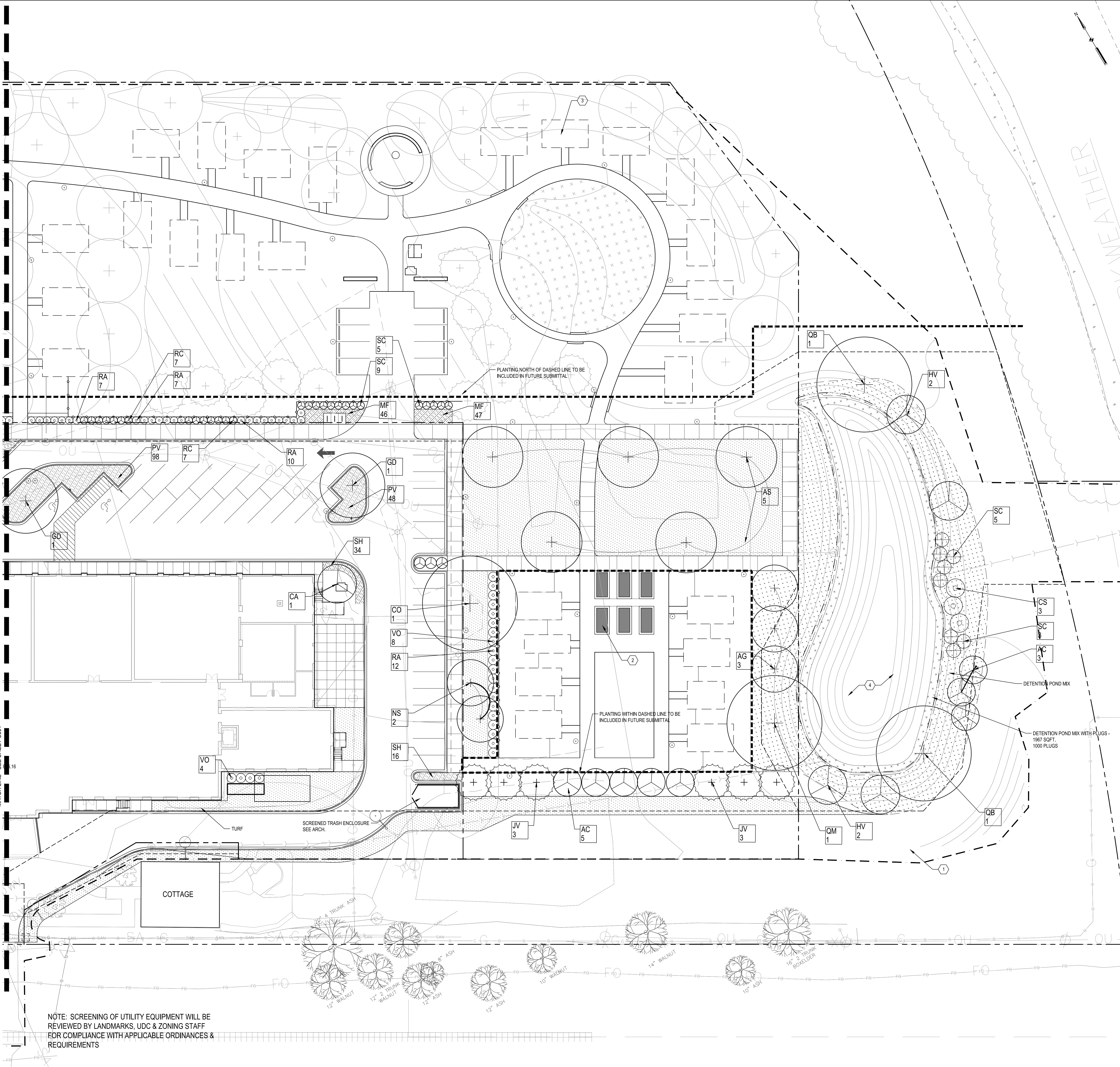
- PLUGS SHALL BE PLANTED IN GROUPS OF 20-30 PLANTS OF THE SAME SPECIES AT 18" O.C.
- SEE SHEET C503 FOR PLANT MATERIALS SCHEDULE
- 

**LEGEND**

- EXISTING VEGETATION TO REMAIN
- EXISTING TREE
- DECIDUOUS SHADE TREE
- CONIFEROUS EVERGREEN TREE
- ORNAMENTAL TREE
- DECIDUOUS SHRUB
- CONIFEROUS SHRUB
- LAWN SEED MIX
- DETENTION POND SEED MIX
- DETENTION POND PERENNIAL PLUGS
- PERENNIAL / GROUNDCOVER / ORNAMENTAL GRASS
- PARKING LIGHT
- PEDESTRIAN SCALE LIGHT
- LIGHTING BOLLARD

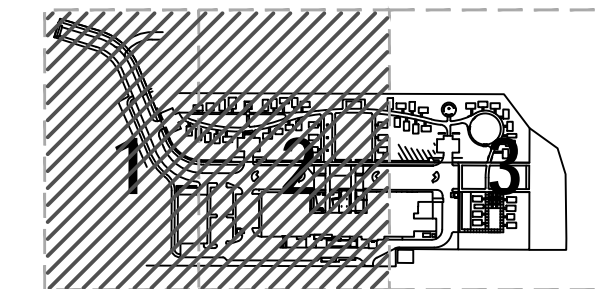
**KEYED NOTES**

- RIGHT-OF-WAY FOR FUTURE BIKE PATH
- VEGETABLE GARDEN PLOT
- FUTURE MICROLODGE LOCATIONS
- STORMWATER MANAGEMENT AREA



NOTE: SCREENING OF UTILITY EQUIPMENT WILL BE REVIEWED BY LANDMARKS, UDC & ZONING STAFF FOR COMPLIANCE WITH APPLICABLE ORDINANCES & REQUIREMENTS

**KEYMAP**



FILE: P:\2017\2017-000\CAD\Civil\Site\2017-C502.dwg USER: bwrch DATE: Jun 12 2017 TIME: 10:52 am

MATCHLINE - SEE SHEET C501

## **APPENDIX D**

### Discharge Permits

# CITY OF MADISON ENGINEERING DIVISION

## REQUEST FOR REVIEW AND APPROVAL TO DISCHARGE WASTEWATER TO THE SEWER SYSTEM FOR DEWATERING PROJECTS OR LIGHTLY CONTAMINATED WATER

### PRIOR APPROVAL BY MMSD REQUIRED

Request Received By:	Megan Eberhardt
Date of Request:	2/12/2018
Requested By (Company Name) :	SCS Engineers
Requested for Client:	Garver Feed Mill, LLC
Project Name / Location:	Garver Feed Mill Redevelopment, 109 S Fair Oaks Ave

### Contact Information

Eric Oelkers; 608-216-7341 eoelkers@scsengineers.com; cell 608-444-3934  
Bryant Moroder, Garver Feed Mill, LLC; 608-577-1150 bryant@baumrevision.com  
Mike Hackel, Homburg Contractors; 608-244-3554 mhackel@homburginc.com

### Description of Discharge (Mark all that apply an complete information)

Dewatering Non Contaminated Ground Water	
Dewatering Lightly Contaminated Ground Water	x
Chiller System Water	
Retention Tank Water	
Other:	

Estimated Total Volume:	500,000
Discharge Date Start:	03/01/18
Discharge Date Complete:	end of year

Requested Discharge Analysis (MMSD and COM)  
attached

**NOTE: If the discharge causes a sewer overflow, the engineering department will use any means necessary to stop the overflow and bill the contractor for all expenses**

### Special Conditions for Discharge

Size of main affected by discharge: 8"	SAS Structure affected by Discharge: SAS 6141-008
Allowable Flow into pipe: 70 gpm	

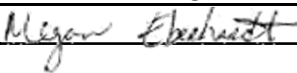
Discharge to MMSD MH on S. Fair Oaks required prior to use.

### Conditions for Reporting Discharge Flow

### Billing Information:

Garver Feed Mill, LLC  
29 Farwell Street  
Madison, WI 53704

Total Estimated Cost: \$100 permit fee + volume charge of \$2.7389 per 1000 gallons + demand charge of \$14.49 per month (assuming 5/8" meter) [Rates valid for discharges through 3/31/18]

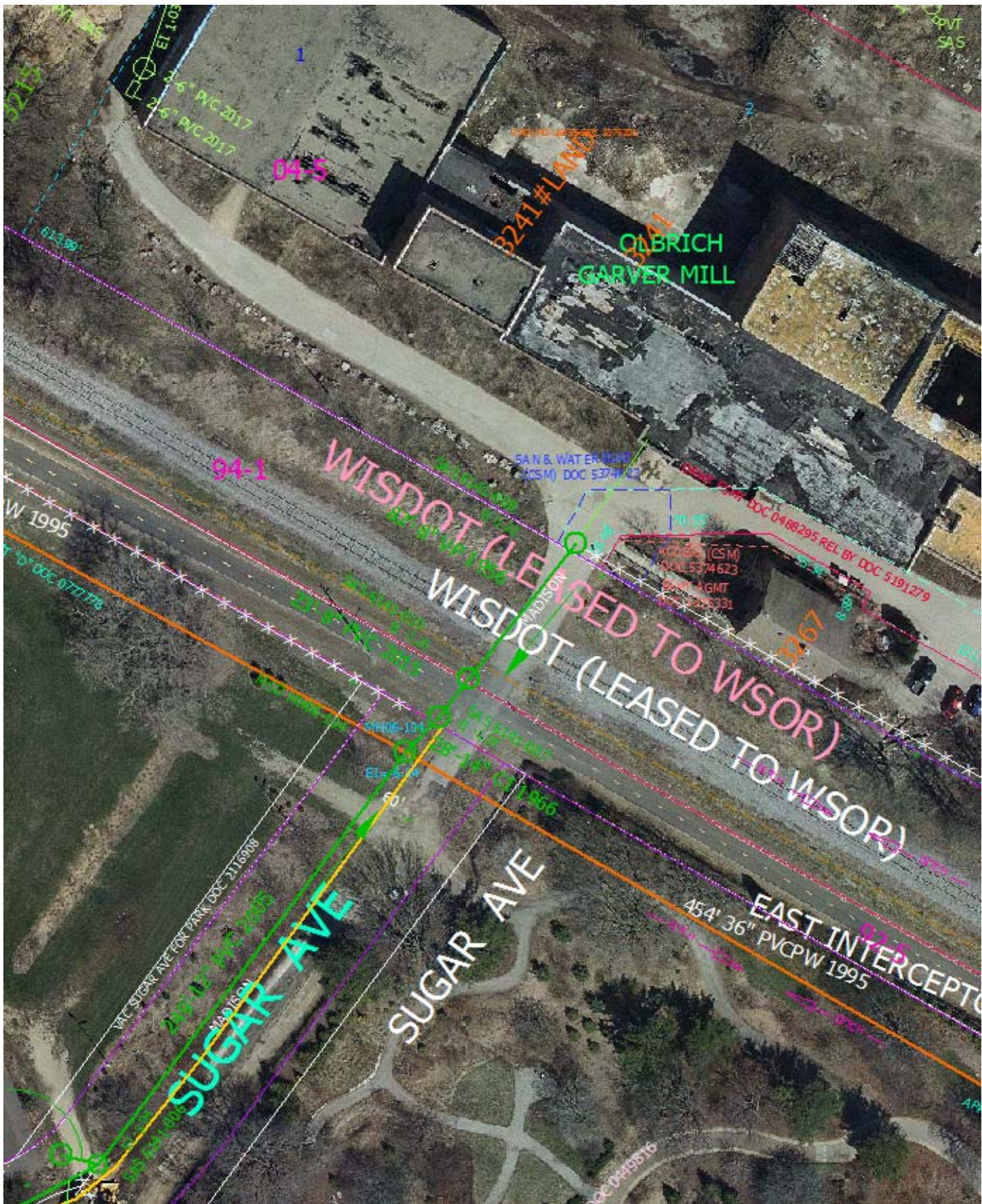
Approved:	M.Eberhardt 
Date:	2/14/2018

See page 2 for Standard Conditions

The Madison Sewer Utility approves the dewatering discharge conditioned upon the following standards are followed:

- 1) This approval is for pit and trench dewatering only. If the depth of the opening is greater than the largest surface dimension or extends more than 10 feet below the ground surface and pumping is > 70gpm, a high capacity well permit from the WDNR is required.
- 2) Discharge is done in a safe manner. Use the identified inlets depicted on the attached approval.
- 3) The discharge must be free of sediment. Sediment removal treatment must comply at a minimum with NR 1061.
- 4) Prior to pumping, Contact Engineering Operations (266-4430) so they are aware of the activity.
- 5) Total volume discharged to the sanitary sewer must be monitored and submitted to City Engineering upon the completed of the dewatering work. **Submit log of dates of discharge operations, metered volume, flow rate, pump times, etc. to meberhardt@cityofmadison.com.** Known flow rate can be provided from pump curve data or by timing discharge to fill a known volume. Submit info on how flow rate was determined with the discharge information log.
- 6) If anything changes from our understanding or you have any questions, please notify meberhardt@cityofmadison.com.





24" 6" PVC 2017  
24" 6" PVC 2017

04-5

8241#LW

OILBRICH  
GARVER MILL

94-1

WISDOT (LEASED TO WSOR)  
WISDOT (LEASED TO WSOR)

SA N & WATER MAIN  
(CSM) DOC 5374623

WISDOT (CSM)  
DOC 5374623  
SA N & AGMT  
DOC 53746331

DOC 0488295 REL BY DOC 5191279

W 1995

60" DOC 0777778

SUGAR AVE

SUGAR AVE

EAST INTERCEPT  
454' 36" PVC PW 1995

VAC SUGAR AVE FOR PARK DOC 2116908  
MADISON  
2007 DEC 14 E 2005  
SAS 1041000

SH06-104  
Elev 84.4

60' 1.966

DOC 04495516

PVT  
SAS

**TO BE COMPLETED BY PROPERTY OWNERS AND CONSULTANTS SEEKING TEMPORARY DISCHARGE APPROVAL FOR LIGHTLY CONTAMINATED WASTEWATER TO THE SANITARY SEWER SYSTEM**

**NON-TYPICAL WASTEWATER REQUEST TO DISCHARGE FORM (NTRDF)**



**A. TO BE COMPLETED BY OWNER OR REPRESENTATIVE**

1. Site Description: Garver Feed Mill Redevelopment (Garver Feed Mill, LLC)
2. a. Street Address: 3244 Atwood Avenue & 109-115 S Fair Oaks Avenue  
b. City, State, Zip: Madison, WI, 53704
3. Mailing Address: a. Street or P.O. Box: 29 Farwell Street  
b. City, State, Zip: Madison, WI 53704
4. Wastewater type, quality, and quantity: Groundwater with low-level petroleum contamination from utility trench dewatering. Quantity will be dependent on depth and length of open trench, not expected to exceed a peak flow 100 gpm. Average flow over duration of construction is anticipated to be less than 20 gpm.
5. Date when discharge could begin: March 1, 2018
6. Reason for filing request:  
 Contingency planning  
 Construction activities on-going or soon to begin  
 Emergency response  
Other: describe
7. Describe process(es) that will result in the discharge of wastewater: Trench dewatering for utility installation
8. List all chemicals/pollutants that might be present in your proposed discharge: Benzene (580 ug/l), toluene (130 ug/l), ethylbenzene (120 ug/l), xylenes (2,400 ug/l), trimethylbenzenes (1,280 ug/l), and naphthalene (280 ug/l). The listed concentrations are the highest detected and were found only in one boring, trace concentrations were found at a few other borings.

9. Describe discharge point and any wastewater pretreatment methods and facilities to be used: \_\_\_\_\_  
Discharge will be to a city of Madison Sanitary sewer manhole. We expect that the untreated  
discharge will not exceed surface water discharge limits.

**B. REQUESTOR MAY ADD OR ATTACH DIAGRAMS, DATA, & COMMENTS:**

**C. CONTACT AND SIGNATORY INFORMATION**

1. Name, title, and contact info of person completing this form:
- a. Name: Eric Oelkers
  - b. Title: Senior Project Manager - SCS Engineers
  - c. Tel Number: 608-216-7340 Email Address: eoelkers@scsengineers.com

**D. RETURN THIS FORM TO**


1. Madison Metropolitan Sewerage District  
Attn: Ralph Erickson  
1610 Moorland Road  
Madison, WI 53713-3398  
ralphe@madsewer.org (608) 222.1201 x362
2. Approval to use the local municipal sewerage system is additionally required. Submittal of this form to the public works or engineering division of the municipality serving the site can assist the municipality in reviewing the request. **The municipality will provide the final decisions regarding the use of its sewers.** The municipality will determine discharge restrictions and cost recovery requirements.

**E. TO BE COMPLETED BY MMSD**

MMSD review of the treatability of the proposed lightly contaminated wastewater

granted, in accordance with municipality approval and requirements. *COM will provide oversight and allowances for using SAS MTS*

rejected, for reasons as specified below / attached.

  
Signature

2-13-18  
Date

**Table 4. Groundwater Analytical Results Summary - VOCs**  
**Garver Feed Mill / SCS Engineers Project #25215077**  
 (Results are in µg/L)

Sample	Date	Lab Notes	DRO	GRO	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Lead	Other VOCs
GB1	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB2	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB3	8/21/009	(2)	NA	NA	<b><u>580</u></b>	<b><u>120</u></b>	<b><u>130</u></b>	<b><u>2,400</u></b>	<b><u>1,280</u></b>	<20	NA	Isopropylbenzene 18 J p-Isopropyltoluene 16 J Naphthalene <b><u>280</u></b>
GB4	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
GB8	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
Trip Blank	8/21/2009	(1)	NA	NA	<0.20	<0.50	<0.50	<0.50	<0.40 A-01	<0.50	NA	ND
NR 140 Enforcement Standards (ES)			NE	NE	5	700	800	2,000	480	60	15	Naphthalene 100
NR 140 Preventive Action Limits (PAL)			NE	NE	0.5	140	160	400	96	12	1.5	Naphthalene 10

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

MTBE = Methyl-tert-butyl ether

-- = Not Applicable

TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

NA = Not Analyzed

VOCs = Volatile Organic Compounds

ND = Not Detected

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

**Bold+underlined** values meet or exceed NR 140 ESs.

*Italic+underlined* values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:

A-01 = External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

J = Results reported between the Method Detection Limit (MDL) and Limit of Quantitation (LOQ) are less certain than results at or above the LOQ.

(1) Bromomethane, n-butylbenzene, sec-butylbenzene, carbon tetrachloride, 1,1-dichloroethene, 1,1-dichloropropene, p-isopropyltoluene, n-propylbenzene, 1,2,4-trichlorobenzene, trichlorofluoromethane, and vinyl chloride analyses - External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

(2) Vinyl chloride analysis - External Standard recovery was above the method control limit for this analyte. Analyte not detected, data not impacted.

Created by: LMH Date: 9/22/2009

Last revision by: AV Date: 6/14/2017

Checked by: LMH Date: 6/14/2017

I:\25215077\Data\Tables\[GW\_VOCs.xls]GW VOCs

**Table 6. Groundwater Analytical Results Summary - VOCs**  
**Garver Feed Mill / SCS Engineers Project #25216207.00**  
 (Results are in µg/L)

Sample	Date	Lab Notes	Benzene	Ethylbenzene	Toluene	Xylenes	TMBs	MTBE	Naphthalene	Other VOCs
TP-5 GW	3/21/2017	--	<0.36	<0.37	<0.33	<0.58	<0.60	<0.24	<2.4	NA
TW-5	5/11/2017	--	<1.8	<1.9	<1.7	<2.9	<3.0	<1.2	<12	ND
H-T9	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
H-T10	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP-1/H31	5/11/2017	--	<0.15	<0.18	<0.15	0.56 J	0.79 J	<0.39	0.54 J	ND
TP2/H16	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP4/H18	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
TP6/H25	5/11/2017	--	<0.15	2.4	<0.15	8.5	14	<0.39	0.57 J	ND
TB	5/11/2017	--	<0.15	<0.18	<0.15	<0.22	<0.61	<0.39	<0.34	ND
NR 140 Enforcement Standards (ESs)			5	700	800	2,000	480	60	100	
NR 140 Preventive Action Limits (PALs)			0.5	140	160	400	96	12	10	

Abbreviations:

µg/L = micrograms per liter or parts per billion (ppb)

TMBs = 1,2,4- and 1,3,5-trimethylbenzenes

NA = Not Analyzed

(Dup) = Duplicate Sample

MTBE = Methyl-tert-butyl ether

ND = Not Detected

-- = Not Applicable

VOCs = Volatile Organic Compounds

NE = No Standard Established

Notes:

NR 140 ESs - Wisconsin Administrative Code (WAC), Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

NR 140 PALs - WAC, Chapter NR 140.10 Table 1 - Public Health Groundwater Quality Standards from July 2015.

**Bold+underlined** values meet or exceed NR 140 ESs.

*Italic+underlined* values meet or exceed NR 140 PALs.

Laboratory Notes/Qualifiers:

J = Result is less than the RL but greater than or equal to the MDL and the concentration is an

Created by: AV Date: 5/23/2017

Last revision by: AV Date: 5/23/2017

Checked by: EO Date: 5/23/2017

I:\25216207.00\Data and Calculations\Tables\[GW\_VOCs1\_170523.xls]GW VOCs

State of Wisconsin  
DEPARTMENT OF NATURAL RESOURCES  
2300 N. Dr. Martin Luther King, Jr. Drive  
Milwaukee WI 53212-3128

Scott Walker, Governor  
Daniel L. Meyer, Secretary  
Telephone 608-266-2621  
Toll Free 1-888-936-7463  
TTY Access via relay - 711



April 5, 2018

(via email to: [bryant@baumrevision.com](mailto:bryant@baumrevision.com))  
Bryant Moroder  
Garver Feed Mill, LLC  
29 Farwell Street  
Madison, WI 53704

**SUBJECT: Determination on Coverage under the Contaminated Groundwater from Remedial Action Operations (No. WI-0046566-06)**

**Parent Company:** Garver Feed Mill, LLC  
**Name of Project:** Garver Feed Mill  
**Site Location:** 109 S Fair Oaks Ave., Madison, WI  
**Facility Identification Number (FIN):** 60678

Dear Bryant Moroder:

The Wisconsin Department of Natural Resources (hereafter Department) has determined that your proposed discharge for Garver Feed Mill is eligible for coverage and is hereby authorized under the Wisconsin Pollutant Discharge Elimination System (WPDES) general permit for *Contaminated Groundwater from Remedial Actions* (No. WI-0046566-06). This determination was based on review of the General Permit Request for Coverage form and Discharge Management Plan submitted by your facility. You are responsible for compliance with the requirements conditions contained in the permit. Please download the permit and fact sheet from the Department website at: <http://dnr.wi.gov/topic/wastewater/GeneralPermits.html>.

The on-site contamination is the result of former petroleum Underground Storage Tanks (UST) and Leaking Underground Storage Tanks (LUST) used for petroleum at Madison City – Garver Feed Mill property, (WDNR BRRTS #03-13-252719). As recently as 2009, residual (post-treatment) petroleum contaminant concentrations in groundwater exceeded the NR enforcement standard (ES) for a few petroleum volatile organic compounds (VOCs) in a one former UST area.

According to the discharge management plan SCS Engineers (SCS) has proposed, the site work contractor plans to pump groundwater from open utility excavations into the ponds to allow settlement of sediment prior to discharging the water to the creek. If dewatering is necessary prior to or during construction of each pond, a portable settling box and/or filter bags will be used to remove sediment prior to discharge to the creek. If necessary, a temporary discharge for the west pond may be routed (via a pump and hose) to an existing storm sewer catch basin on Fair Oaks Avenue - prior to the construction of a permanent underground connection. In this case, pumping will occur at the pond safety shelf elevation (approximately 4 feet above the bottom of the pond).

No treatment is proposed specifically for the traces of petroleum-related VOCs (PVOCs) found in groundwater. It is suggested by SCS that PVOC concentrations detected in the recent test pits are so low that it is not practical to reduce them further with active treatment. SCS expects that effective removal of suspended sediment will also prevent discharge of polynuclear aromatic hydrocarbons (PAHs) that may be sorbed onto soil particles. If field observations or future sampling results indicate that the dewatering discharge water will not meet permit criteria,

the discharge will be re-routed to the sanitary sewer until the problem can be addressed. The Madison Metropolitan Sewerage District and City of Madison have already approved discharges of mildly contaminated groundwater into the sanitary sewer system.

The anticipated peak flow rate is less than 250 gallons per minutes (gpm) with average flow rates less than 50 gpm during pumping. The monthly total is anticipated to be less than 2,000,000 gallons. Discharge is anticipated to begin in spring 2018 and continue intermittently throughout the year as needed during subsurface utility construction activities. Any significant treatment changes will require the Departments approval.

Discharges under this permit are required to be consistent with the discharge management plan that has been approved by the Department. Your application submitted will be considered as the required discharge management plan. All of your contaminated wastewater discharges and remedial actions must be done according to the terms and conditions of the permit, specifically sections 1, 2, 3 and 8.

**General Requirements**

1. **Effective Term:** Permit Coverage begins on April 5, 2018. Even though the permit expired on June 30, 2017, the terms and conditions of this general permit remain in effect until this general permit is re-issued by the department.
2. **Additives:** The discharge of other water treatment additives is prohibited unless their use is approved in writing by the DNR.
3. **Monitoring requirements:** Monitoring requirements for discharges designed to enhance the remediation of in-situ contaminants are found in Section 3 of the permit.
  - **Flow:** A record must be kept of the total daily volume discharged.
  - **Parameters:** See table below. This is based on the information submitted to the Department in the Discharge Management Plan.
  - **Sampling Point:** The discharge sample location shall be from the system outfall and prior to discharge to temporary or permanent leading to Starkweather Creek.
  - **Sampling Frequency:** Estimates of flow should be recorded daily. Sampling for all other parameters are as follows:
    - At start-up of discharge
    - One time per week during the initial six weeks of discharge
    - One time per month thereafter, until the discharge has ended
    - See section 2.5 of the permit for all other requirements

**3.1 Effluent Limits and Monitoring Requirements**

Parameter	Effluent Limitations	Sample Frequency	Sample Type
*Flow	Gallons/Day	Daily	Total Daily
*Suspended Solids, Total	40 mg/L Daily Maximum	See above	Grab
Benzene	50 µg/L Monthly Average	See above	Grab

Total BETX ( <i>see permit section 3.4</i> )	750 µg/L Daily Maximum	See above	Grab
Polynuclear Aromatic Hydrocarbons ►	0.1 µg/L Monthly Average	See above	Grab
Methyl Tert Butyl Ether (MTBE)	-	See above	Grab
Lead, Total Recoverable	50 µg/L Daily Maximum	See above	Composite

\* = parameter listed in duplicate, only one sample required per sampling event

► In Accordance with the Bureau of Water Quality Program Guidance document “PAH Group of 10 Calculation of Concentration Using Toxicity Equivalent Factors”, all PAH compounds must be grouped together and totaled not to exceed the effluent limit of 0.1 µg/L. Using the TEF – Toxicity Equivalent Factors provided in said document (attached). *See Wisconsin Administrative Code NR 140.10, Table 1 for updated PALs (last updated February 2017).*

**PAH Group of 10 TEF Table**

Constituent	PAL (µg/L)
Anthracene	600
Benzo(a)pyrene	0.02
Benzo(b)fluoranthene	0.02
Chrysene	0.02
Fluoranthene	80
Fluorene	80
Napthalene	10
Pyrene	50
Benzene	0.5
Toluene	160
Ethylbenzene	140
Xylene	400

**4. Reporting:**

- Records of effluent volume shall be submitted on DMR forms following the completion of the treatment and discharges. All sample results must be reported on the DMR. Reports are due on the 15th day of the month following the completion of the project. The owner must sign the DMRs. DMRs should be sent to the address indicated on the DMR. Please make copies of the enclosed DMR for your use.
- Records required by this permit must be kept for the duration of the permit and made available for inspection by Department staff upon request.
- **Any exceedances of the permit limits shall be reported to the Department within 24 hours of the permittee becoming aware of the exceedance.**



Limits based on groundwater quality protection are set at the preventive action limits in ch. NR 140, Wis. Adm. Code. These limits are based on substances reported to be in the discharge, but may not necessarily include all substances of public health or welfare concern, which are in the discharge. However, nothing in this permit allows the permittee to discharge any substance in a concentration that would cause groundwater standards in Ch. NR 140 to be exceeded.

If you have any questions about permit requirements or the contents of this letter, please feel free to contact Karl Knutson, Wastewater Specialist for District South, (414) 263-8713 or email [karl.knutson@wisconsin.gov](mailto:karl.knutson@wisconsin.gov).

Sincerely,



Karl Knutson  
Wastewater Specialist  
Bureau of Water Quality

Cc: Trevor Moen, General Permit Coordinator, WDNR (via email)  
Eric Oelkers, SCS Engineers (via email)  
Mike Schmoller, WDNR Project Manager (via email)

Enc: DMR Form  
PAH group of 10 TEF Document

#### LEGAL AUTHORITIES AND APPEAL RIGHTS

Section 283.35, Wisconsin Statutes, authorizes the Department to issue general permits for discharges from categories or classes of point sources. If a permittee believes coverage of a facility under a general WPDES permit is not appropriate, the permittee may apply for issuance of an individual WPDES permit pursuant to section 283.35(2) and may petition the Department for withdrawal of coverage under the general permit. The individual permit application should indicate which site specific factors would justify alternate WPDES limits for the operation. Issuance of such a site specific WPDES permit will provide for a 30 day public comment period, and potentially a public informational hearing and/or an adjudicatory hearing. The Department may withdraw a facility from coverage under a general permit if it is determined that a discharge is a significant contributor of pollutants to waters of Wisconsin, or in certain other cases set out in s. 283.35, Stats. In lieu of general permit withdrawal, the Department may refer any violation of this permit to the Department of Justice for enforcement under s. 283.89, Stats. In order to avoid any enforcement action, **please read the WPDES permit carefully and comply with the permit requirements.**

If you believe you have a right to challenge the Department decision to cover this facility with a WPDES general permit, you should know that Wisconsin statutes and administrative rules establish time periods within which requests to review Department decisions must be filed. To request a contested case hearing pursuant to section 227.42, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to serve a petition for hearing on the Secretary of the Department of Natural Resources. Such a petition should identify pollutant(s) that are believed to be not appropriately regulated by the general permit for the specific site. All requests for contested case hearings must be made in accordance with section NR 2.05(5), Wis. Adm. Code, and served on the Secretary in accordance with section NR 2.03, Wis. Adm. Code. The filing of a request for a contested case hearing is not a prerequisite for judicial review and does not extend the time period for filing a petition for judicial review.

For judicial review of a decision pursuant to sections 227.52 and 227.53, Wis. Stats., you have 30 days after the decision is mailed, or otherwise served by the Department, to file your petition with the appropriate circuit court and serve the petition on the Department. A petition for judicial review must name the Department of Natural Resources as the respondent.

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