
Michigan Department of Agriculture

Right to Farm Program

LIVESTOCK PRODUCTION FACILITY SITING REQUEST

For:

Silver Creek Poultry LLC
7850 Lake Rd
Berrien Center, MI 49102
Cass County

Location:

~51501 Bakeman Rd
Dowagiac, MI 49047

Prepared By:

Agronomic Solutions, LLC
Melissa Lehman
PO Box 340
Topeka, IN 46571
(260) 593-2092

Silver Creek Poultry LLC
7850 Lake Rd
Berrien Center, MI 49102

Michigan Department of Agriculture
PO Box 30017
Lansing, MI 48909

To Whom It May Concern,

We are proposing to build a new layer operation located at ~51501 Bakeman Rd., Dowagiac, MI in Cass County, Silver Creek Township. We are looking to build a 4 - 42'x500' layer barns and 2 - 60'x60'x3' manure storages that will house a total of 45,000 layers. There will be 45,000 layers on-site after construction is complete for a total of 450 AU.

The proposed barns and manure storages will meet all of the setback requirements listed in the Siting GAAMP.

We are asking MDA to review the enclosed Siting application to build a new operation.

Sincerely,

A handwritten signature in blue ink that reads "Joel Layman". The signature is written in a cursive style with a large initial "J".

Silver Creek Poultry LLC

Livestock Site Selection Application

Applicant Information

Owner Name:	Silver Creek Poultry LLC	Mailing Address	7850 Lake Rd		
Farm Name:		City	Berrien Center	State	MI
Phone Number	(269) 208-5899	Zip	49102		
Phone Number		Alternative Contact			
Email		Phone Number			

Proposed Project Location

Technical Service Provider

Site Address	~51501 Bakeman Rd			Business Name	Agronomic Solutions LLC		
City	Dowagiac	State	MI	Zip	49047		
County	Township	Section		Primary Contact	Melissa Lehman		
Cass	Silver Creek	10		Phone Number	(260) 593-2092		
Crossroads	Latitude	Longitude		Phone Number			
Bakeman Rd & Topash St	42.046572	-86.154513		Email	melissa@agronomicsolutionsllc.com		

Siting Request Letter: Attachment 1

Included	<input checked="" type="checkbox"/>	Letter from responsible party requesting siting review with an overview of the proposed project, including where the project is being proposed
Included	<input checked="" type="checkbox"/>	Letter is signed

Project Time Table

Construction Start	Summer 2023	Construction Finish	July 2023
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Proposed Animal Additions

Livestock Type	Average Weight	Number	Animal Units
Layers	4 lb	45,000	450
Total Animal Units			450

Existing Livestock

Livestock Type	Average Weight	Number	Animal Units
N/A			
Livestock Type	Average Weight	Number	Animal Units
Livestock Type	Average Weight	Number	Animal Units
Livestock Type	Average Weight	Number	Animal Units
Livestock Type	Average Weight	Number	Animal Units
Livestock Type	Average Weight	Number	Animal Units
			Total Animal Units

New or Expanding Facility

	Total Animal Units
Check if Yes <input type="checkbox"/>	Greater than 100% holding capacity increase and total AU is greater than 749
Check if Yes <input type="checkbox"/>	Expansion within 3 years of a previous MDARD final conformance of a New Livestock Production Facility and total AU is greater than 749.
Check if Yes <input type="checkbox"/>	Expansion within 3 years of a previous MDARD final conformance of an Expanded Livestock Production Facility, with both expansions totaling greater than 100% holding capacity, and total AU is greater than 749.
Check if Yes <input checked="" type="checkbox"/>	No preexisting livestock on site or more than 1,000 ft from another site under common ownership
If any of the above boxes are checked yes, then this is a new facility	
Check if Yes <input checked="" type="checkbox"/>	New Facility
Check if Yes <input type="checkbox"/>	Expanding Facility

Proposed Housing Type

Facility Type	Design	Size
Under-roof Litter Storage (P1)	Concrete floor	42'x500' (bird space)
Facility Type	Design	Size
Under-roof Litter Storage (P2)	Concrete floor	42'x500' (bird space)
Facility Type	Design	Size
Under-roof Litter Storage (P3)	Concrete floor	42'x500' (bird space)
Facility Type	Design	Size
Under-roof Litter Storage (P4)	Concrete floor	42'x500' (bird space)
Facility Type	Design	Size

Existing Housing Type

Facility Type	Design	Size	Year Built
N/A			
Facility Type	Design	Size	Year Built
Facility Type	Design	Size	Year Built
Facility Type	Design	Size	Year Built
Facility Type	Design	Size	Year Built

Proposed Manure Storage Type

Storage Type	Design	Size
Dry Stack (P5)	Concrete floor & sidewalls	60'x60'x3'
Storage Type	Design	Size
Dry Stack (P6)	Concrete floor & sidewalls	60'x60'x3'
Storage Type	Design	Size
Storage Type	Design	Size
Storage Type	Design	Size

Existing Manure Storage Type

Storage Type	Design	Size	Year Built
N/A			
Storage Type	Design	Size	Year Built
Storage Type	Design	Size	Year Built
Storage Type	Design	Size	Year Built
Storage Type	Design	Size	Year Built

50-749 Animal Units; Attachment 2

	Number of non-farm residences w/in ¼ mile
Included <input checked="" type="checkbox"/>	Attach list including, name, address, and phone number – identifying how they were notified of the proposed project (See Appendix A)

750 or More Animal Units; Attachment 2

	Number of non-farm residences w/in ½ mile
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Included <input type="checkbox"/>	Attach list including, name, address, and phone number – identifying how they were notified of the proposed project (See Appendix A)
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Site Category – Property Lines

2	Siting Category (Consult Tables 2-5 of the Site Selection GAAMPs)			
300	GAAMPs Property Line Setback			
250	Minimum Property Line Setback			
Proposed Setback	North 250	East 500	South 250	West 335
Signed Variance Included	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>
Reduction Request	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>

Offset Model: Attachment 3

Included <input checked="" type="checkbox"/>	MI OFFSET 2018 Centroid Worksheet with source centers		
Included <input checked="" type="checkbox"/>	Odor Print		
Factor 9.8	Odor Emission Factor		
Included <input type="checkbox"/>	Odor reduction factors include documentation of justification		
Centroid Location	Latitude	42.046572	Longitude -86.154513

Surrounding Property Owners; Attachment 4; 5; 6; 7

Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>	Appendix A: Certification of Notification of Non-Farm Residences
Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Appendix B: Facility Site Selection and Odor Variance Agreement
Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>	Appendix C: Facility Site Selection and Setback Variance Agreement
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>	Appendix D: Manure Application Agreement

Construction Details – Required for Construction Approval; Attachment 8; 9

Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>	Signed and Stamped Preconstruction Drawings
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>	Subsurface Investigation

Manure Management System Plan Components: Attachment 10;

Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>					Production - amount or volume of manure and other agricultural by-products produced and milk house wastewater.																									
Animal Type	Housing:	Weight (lbs):	# Head	A.U.	Days/Year	Storage Type	Tons/Year	F13/Year	Gal/Year	N (lb/gal)	P ₂ O ₅ (lb/gal)	K ₂ O (lb/gal)																		
Totals:			XX	XX			XX	XX	XX	xx	xx	xx																		
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>					Collection - how manure and other by-products are gathered for management																									
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>					Storage - type, size, capacity, location, and estimated storage time																									
					<table border="1" style="width:100%; border-collapse: collapse; margin-left: 40px;"> <thead> <tr> <th style="padding: 2px;">Storage ID</th> <th style="padding: 2px;">Storage type</th> <th style="padding: 2px;">Capacity</th> <th style="padding: 2px;">Units</th> <th style="padding: 2px;">Annual Collected</th> <th style="padding: 2px;">Days Storage</th> </tr> </thead> <tbody> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> <tr><td> </td><td> </td><td> </td><td> </td><td> </td><td> </td></tr> </tbody> </table>								Storage ID	Storage type	Capacity	Units	Annual Collected	Days Storage												
Storage ID	Storage type	Capacity	Units	Annual Collected	Days Storage																									
Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>					Transfer - movement between production, collection, storage, treatment, or land application																									
Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>					Treatment - before, during, or after storage - physical, biological, chemical, solid/liquid separation, composting																									
Included <input type="checkbox"/> or NA <input checked="" type="checkbox"/>					Utilization - end use of the manure nutrients analysis, crops to be grown with realistic yield goals, application scheduling (If additional acres are needed for manure utilization, See Appendix D to																									

Crop	Bray P1 (ppm) soil P	Avg. Yield	Unit per acre	Spread-able Acres	N/Ac Removed (lb)	Total N Lb	P ₂ O ₅ /Ac Removed (lb)	Total P ₂ O ₅ Lb	K ₂ O/Ac Removed (lb)	Total K ₂ O Lb
Totals:					XX			XX	XX	XX
				Nitrogen		P ₂ O ₅		K ₂ O		
				Available from manure						
				Needed by Crops						
				Balance						
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>			Recordkeeping - documentation of activities related to manure handling and utilization							
Included <input checked="" type="checkbox"/> or NA <input type="checkbox"/>			Odor Management - practices to be followed to achieve effective odor control. Includes detailed information related to any OFFSET model reduction technologies or practices, as well as description of operation and maintenance of these.							

Appendix A

Certification of Notification of Non-farm Residences

I, Silver Creek Poultry LLC (Joel Layman), am constructing a new layer facility. As required in the Generally Accepted Agricultural and Management Practices for Site Selection and Odor Control for New and Expanding Livestock Facilities, I certify that I have notified the following residences within ¼ mile distance from my facility by way of letter through registered mail:

Name	Address	Notification Method	Resident Signature (optional)
Robin Valenzuela	51900 Bakeman Rd Dowagiac, MI 49047	Letter	
Frank Wesolowski	51970 Bakeman Rd Dowagiac, MI 49047	Letter	
Brian McMeeken & Sarah Marhanka	203 N Center Hartford, MI 49057	Letter	
Christopher & Frances Maxey	30284 Topash St Dowagiac, MI 49047	Letter	
Anita Beach Life Estate	52328 Brosnan Rd Dowagiac, MI 49047	Letter	
Dale & Candance Young Life Estate	30626 Topash St Dowagiac, MI 49047	Letter	

Name: Silver Creek Poultry LLC (Joel Layman)

Address: 7580 Lake Rd Berrien Center, MI 49102

Signature: 

Date: 2-20-23

Generally Accepted Agricultural and Management Practices for Site Selection and Odor Control for New and Expanding Livestock Facilities.

You are hereby notified that an application has been made to the Michigan Department of Agriculture Right to Farm Program for the following described operation:

Applicant / Operation Name: Silver Creek Poultry LLC (Joel Layman)
Date Application Submitted: 3/1/2023

Operation Location:

Nearest Crossroads / Address ~51501 Bakeman Rd., Dowagiac, MI 49047
Nearest City / Town Dowagiac
County Cass
Political Township Silver Creek
USGS Section/Township/Range Section 10 / T5S / R16W

Brief Description of Application:

The producer is proposing to build 4 layer barns and 2 manure storages. The layer barns will be 42'x500' each and the manure storages will be 60'x60' each. Each of the barns will house 11,250 layer birds on sawdust. There will be a total of 45,000 layers on site once completed. All of the litter from this operation will be distributed off site to local farmers.

Questions regarding the location or other aspects of the application should be addressed to:

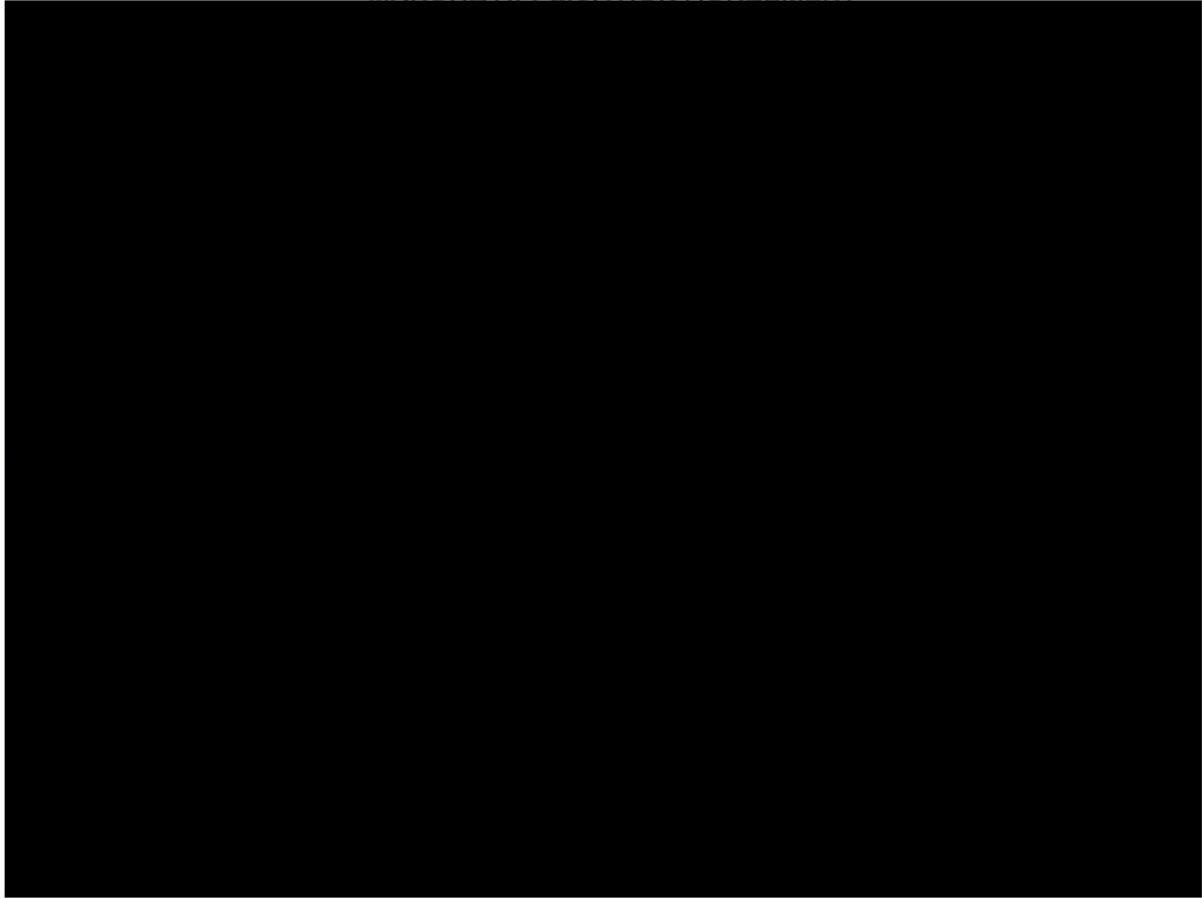
Applicant's Name: Silver Creek Poultry LLC (Joel Layman)
Address: 7850 Lake Rd
City/State/ZIP: Berrien Center, MI 49102
Phone Number: (269) 208-5899

This Siting Application will be reviewed by the MDA Michigan Department of Agriculture to ensure that it meets all of the States rules, setbacks and acceptable management practices. The reviewer for this application will be:

Jay Korson, MDA Right to Farm Program
korsonj@michigan.gov

Appendix D

MANURE APPLICATION AGREEMENT



Michigan Department of Agriculture

Right to Farm Program

SITE PLANS & MAPS

For:

Silver Creek Poultry LLC

7850 Lake Rd

Berrien Center, MI 49102

Cass County

Prepared By:

Agronomic Solutions, LLC

Melissa Lehman

PO Box 340

Topeka, IN 46571

(260) 593-2092

Digital Mapped File (KMZ File Preferred); Attachment 11

If attached file is not a .kmz; the file(s) must include an accurate scale.

Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Farm animal housing or manure storages that contribute to Odor Plume using Red polygon outline, labeled with placemark
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Created ½ or ¼ mile radius (as appropriate) from the edges of the facility in Red circle measures . Edges of the facility are defined as corners of the smallest polygon encompassing all of the animal housing and manure storages of a livestock facility.
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Farm Facilities that do not contribute to Odor Plume, Green polygon outline, labeled with placemark
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Plotted non-farm residences in WHITE and numbered (1/2 mile or 1/4 mile, as appropriate). Farm residence plotted as Green placemarks . Names and addresses provided in description of each point.
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Property lines, easements, right-of-way and any deed restrictions in Tan polygon outline . Took linear measures from edges of the facility in Yellow .
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Wetlands, floodplains, lakes, streams, public drains and other bodies of water within 500 ft. of the edges of the facility in Dark blue polygon outline . Tile lines, septic fields or surface drains within 100 ft. of the edges of the facility as Dark blue lines, polygons, or points respectively. Provide detail in description.
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Wells within 2,000 ft. of the production facility. Denoted in Light blue placemark, labeled by type . Took linear measures from edges of the facility in Yellow .
Yes <input checked="" type="checkbox"/> or <input type="checkbox"/>	No <input type="checkbox"/>	No well meets the following criteria: Type IIA w/in 2,000, Type IIB or Type III w/in 800 or Private Well w/in 75'.
Included <input type="checkbox"/> or <input checked="" type="checkbox"/>	NA <input checked="" type="checkbox"/>	For wells with a variance, Health Department or EGLE Variance. Wells with a variance should be indicated with a yellow star icon
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Outlined all high public use areas: Purple polygon outline, include name and address provided in description . Took linear measures from edges of the facility in Yellow .
Included <input type="checkbox"/> or <input checked="" type="checkbox"/>	NA <input checked="" type="checkbox"/>	Confirmed the location of migrant labor housing camps in the area, mapped in Olive polygon outline . Took linear measurements in Yellow , greater than 500 ft.
Included <input type="checkbox"/> or <input checked="" type="checkbox"/>	NA <input checked="" type="checkbox"/>	Overlay any EGLE wellhead protection areas in Pink polygon outline .
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Submitted image overlays of soil types and topography of the site and surrounding 1/4 mile radius.
Included <input type="checkbox"/> or <input checked="" type="checkbox"/>	NA <input checked="" type="checkbox"/>	Confirmed an accurate 100-year flood plain as Dark blue polygon .
Included <input checked="" type="checkbox"/> or <input type="checkbox"/>	NA <input type="checkbox"/>	Mapped the MI OFFSET 95% annoyance boundary and centroid for the facility as an Orange polygon outline , with the centroid denoted as a Black point labeled with total emission factor.

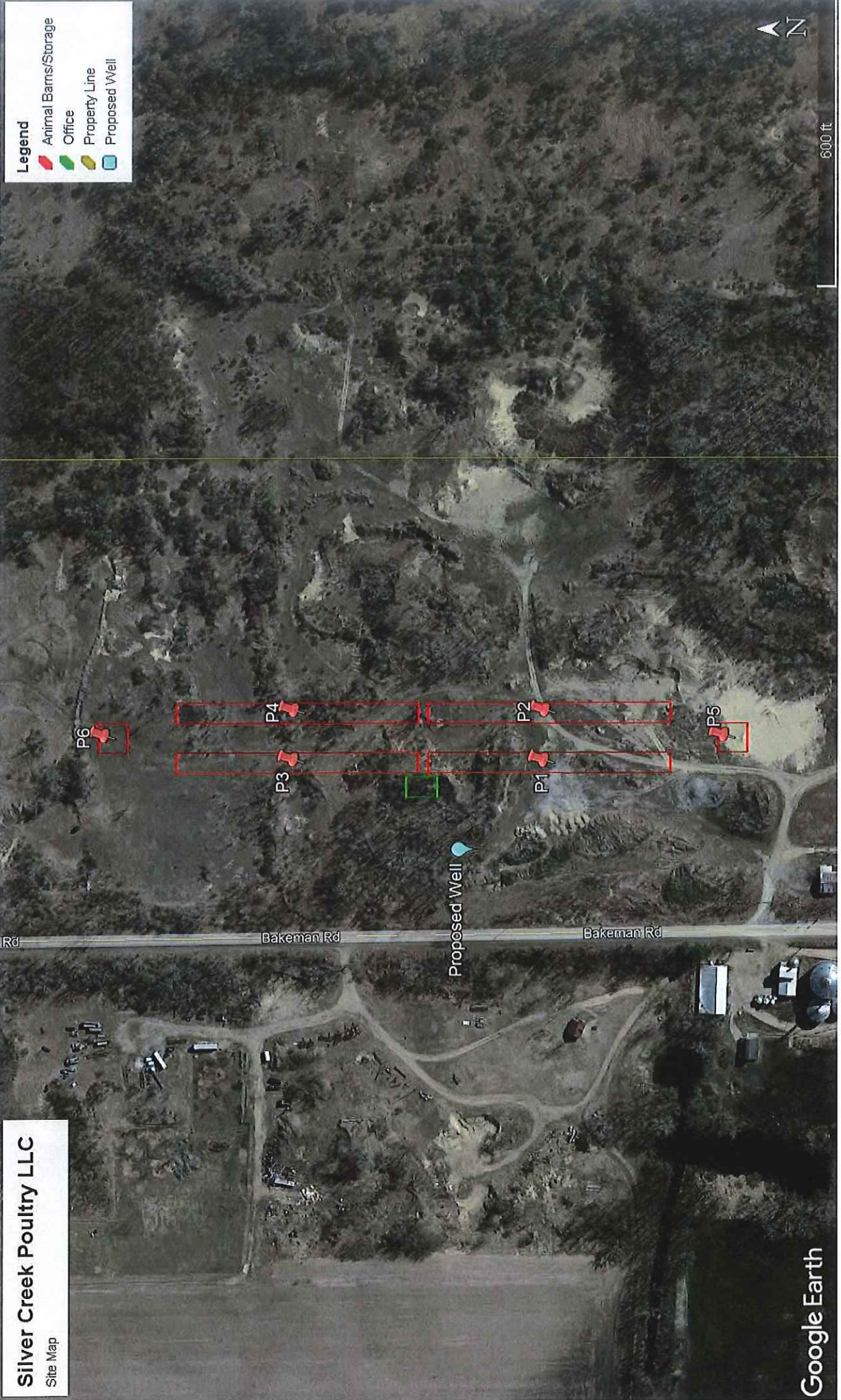
Acknowledged



To the best of my knowledge, all submitted information is accurate. I understand that inaccuracies or omissions in my application materials may invalidate any determination made by MDARD.

Silver Creek Poultry LLC





Site Map



Silver Creek Poultry LLC

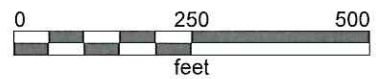


Site Map

-  Property Line
-  Proposed Driveway
-  Soil Boring Pt
-  Well

Site Map

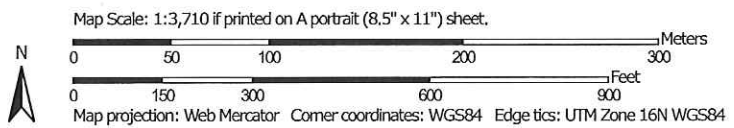
~51501 Bakeman Rd
Dowagiac, MI 49047











































Soil Map—Cass County, Michigan
(Silver Creek Poultry LLC)



Soil Map may not be valid at this scale.



MAP LEGEND

 Area of Interest (AOI)	 Spoil Area
 Soils	 Stony Spot
 Soil Map Unit Polygons	 Very Stony Spot
 Soil Map Unit Lines	 Wet Spot
 Soil Map Unit Points	 Other
 Special Point Features	 Special Line Features
 Blowout	 Streams and Canals
 Borrow Pit	 Transportation
 Clay Spot	 Rails
 Closed Depression	 Interstate Highways
 Gravel Pit	 US Routes
 Gravelly Spot	 Major Roads
 Landfill	 Local Roads
 Lava Flow	 Background
 Marsh or swamp	 Aerial Photography
 Mine or Quarry	
 Miscellaneous Water	
 Perennial Water	
 Rock Outcrop	
 Saline Spot	
 Sandy Spot	
 Severely Eroded Spot	
 Sinkhole	
 Slide or Slip	
 Sodic Spot	

MAP INFORMATION

The soil surveys that comprise your AOI were mapped at 1:15,800.

Warning: Soil Map may not be valid at this scale.

Enlargement of maps beyond the scale of mapping can cause misunderstanding of the detail of mapping and accuracy of soil line placement. The maps do not show the small areas of contrasting soils that could have been shown at a more detailed scale.

Please rely on the bar scale on each map sheet for map measurements.

Source of Map: Natural Resources Conservation Service
Web Soil Survey URL:
Coordinate System: Web Mercator (EPSG:3857)

Maps from the Web Soil Survey are based on the Web Mercator projection, which preserves direction and shape but distorts distance and area. A projection that preserves area, such as the Albers equal-area conic projection, should be used if more accurate calculations of distance or area are required.

This product is generated from the USDA-NRCS certified data as of the version date(s) listed below.

Soil Survey Area: Cass County, Michigan
Survey Area Data: Version 19, Aug 25, 2022

Soil map units are labeled (as space allows) for map scales 1:50,000 or larger.

Date(s) aerial images were photographed: Data not available.

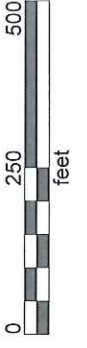
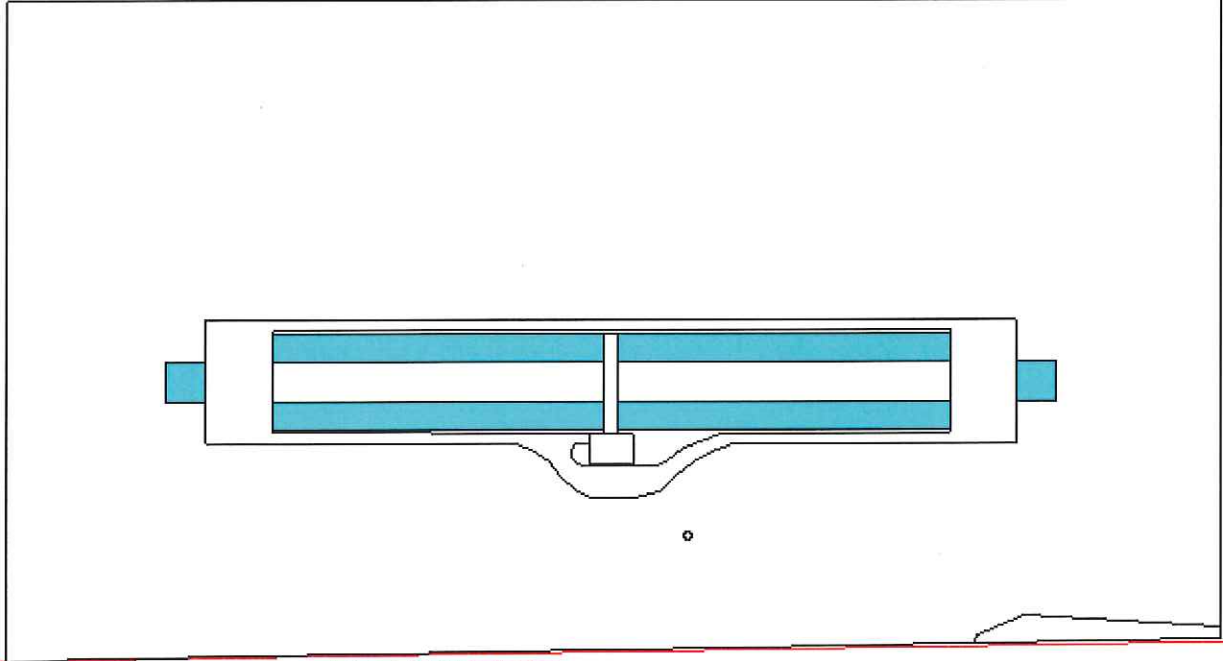
The orthophoto or other base map on which the soil lines were compiled and digitized probably differs from the background imagery displayed on these maps. As a result, some minor shifting of map unit boundaries may be evident.

Map Unit Legend

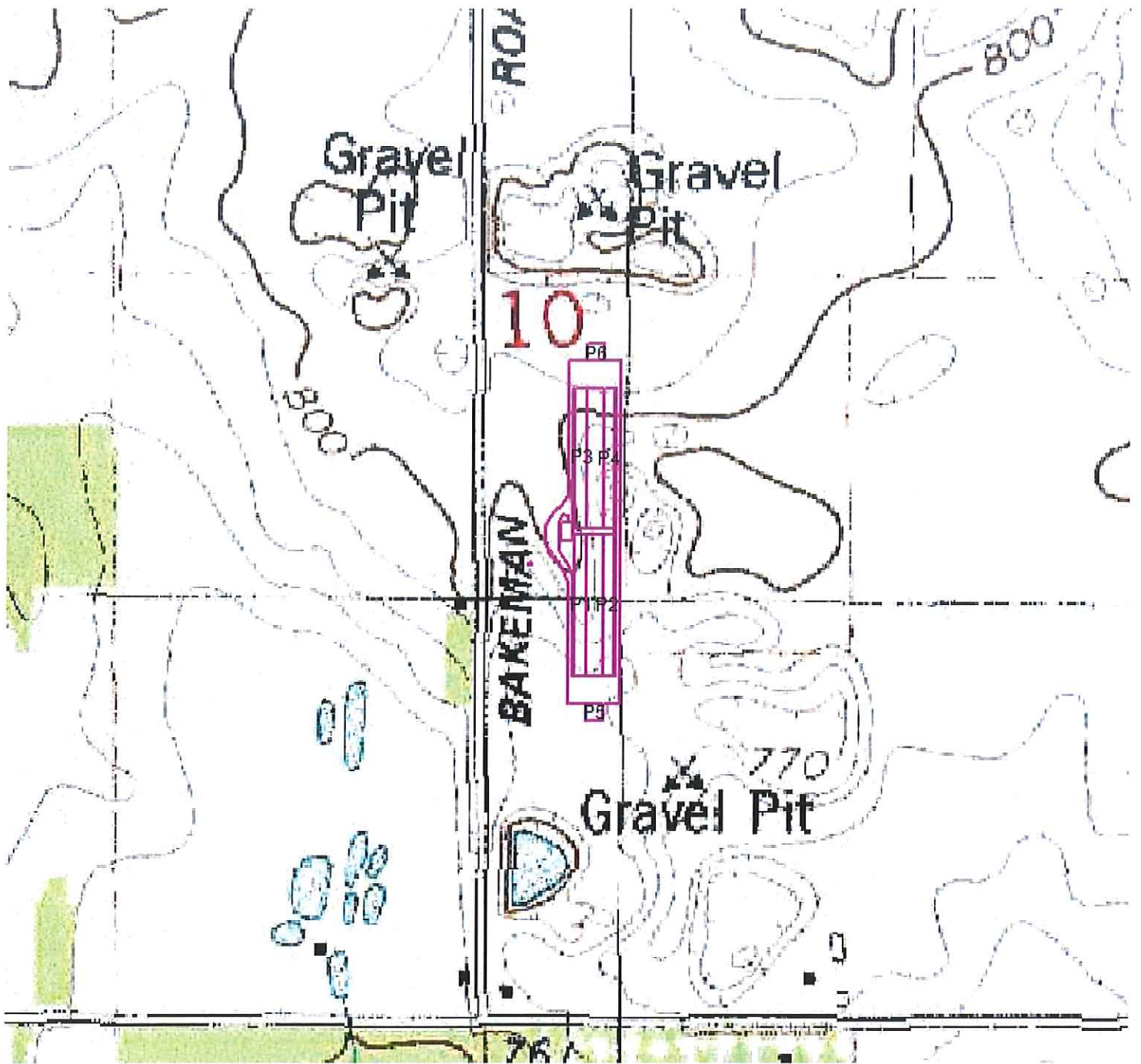
Map Unit Symbol	Map Unit Name	Acres in AOI	Percent of AOI
4B	Oshtemo sandy loam, 2 to 6 percent slopes	3.1	5.0%
15	Glendora muck	0.0	0.0%
34	Pits	57.9	95.0%
Totals for Area of Interest		61.0	100.0%

Silver Creek Poultry LLC

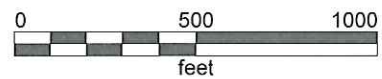
Cass Co Soil Types



Silver Creek Poultry LLC



USGS Topographic Map



Michigan Department of Agriculture

Right to Farm Program

MANURE/ODOR MANAGEMENT PLAN

For:

Silver Creek Poultry LLC

7850 Lake Rd

Berrien Center, MI 49102

Cass County

Prepared By:

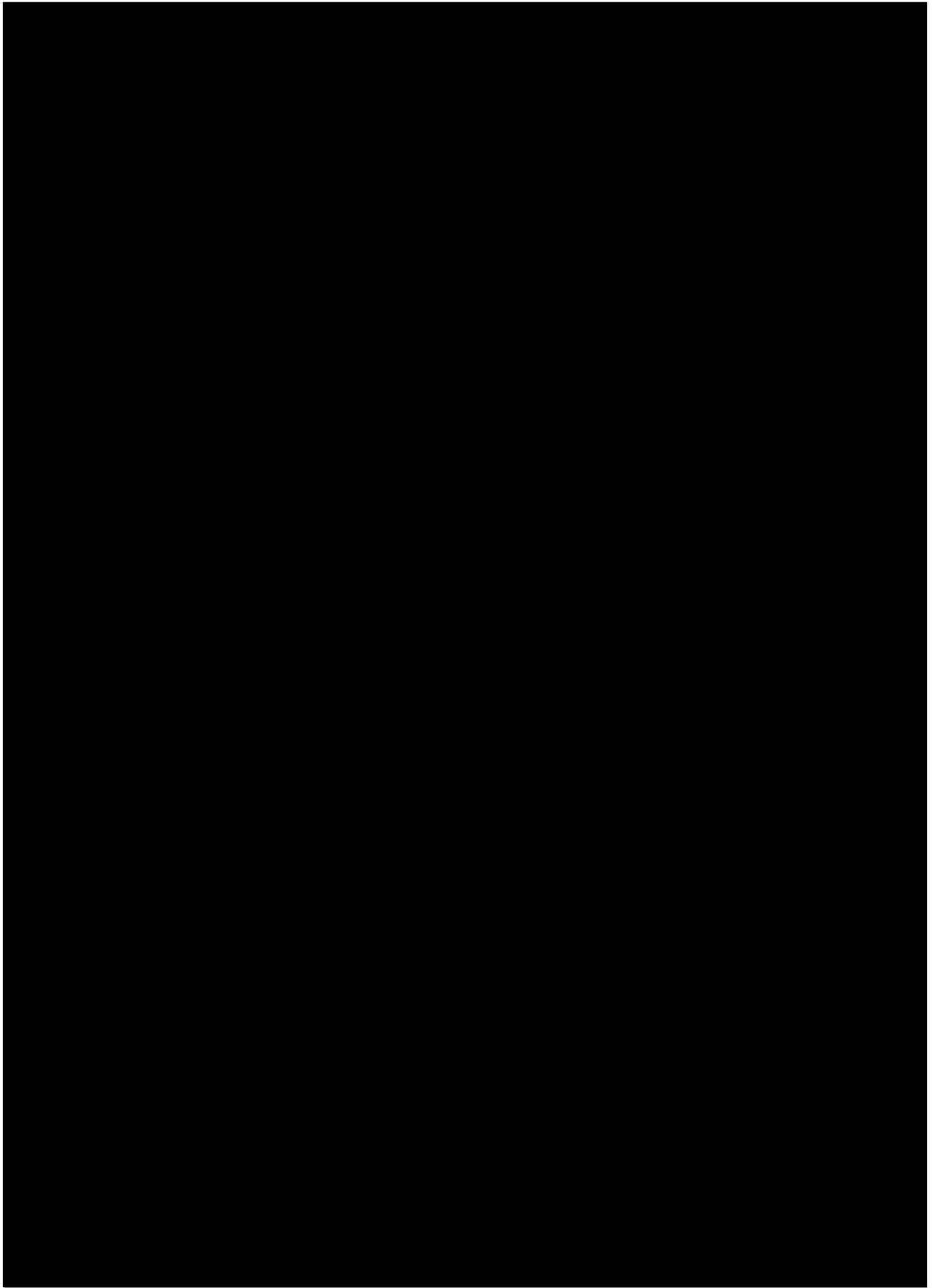
Agronomic Solutions, LLC

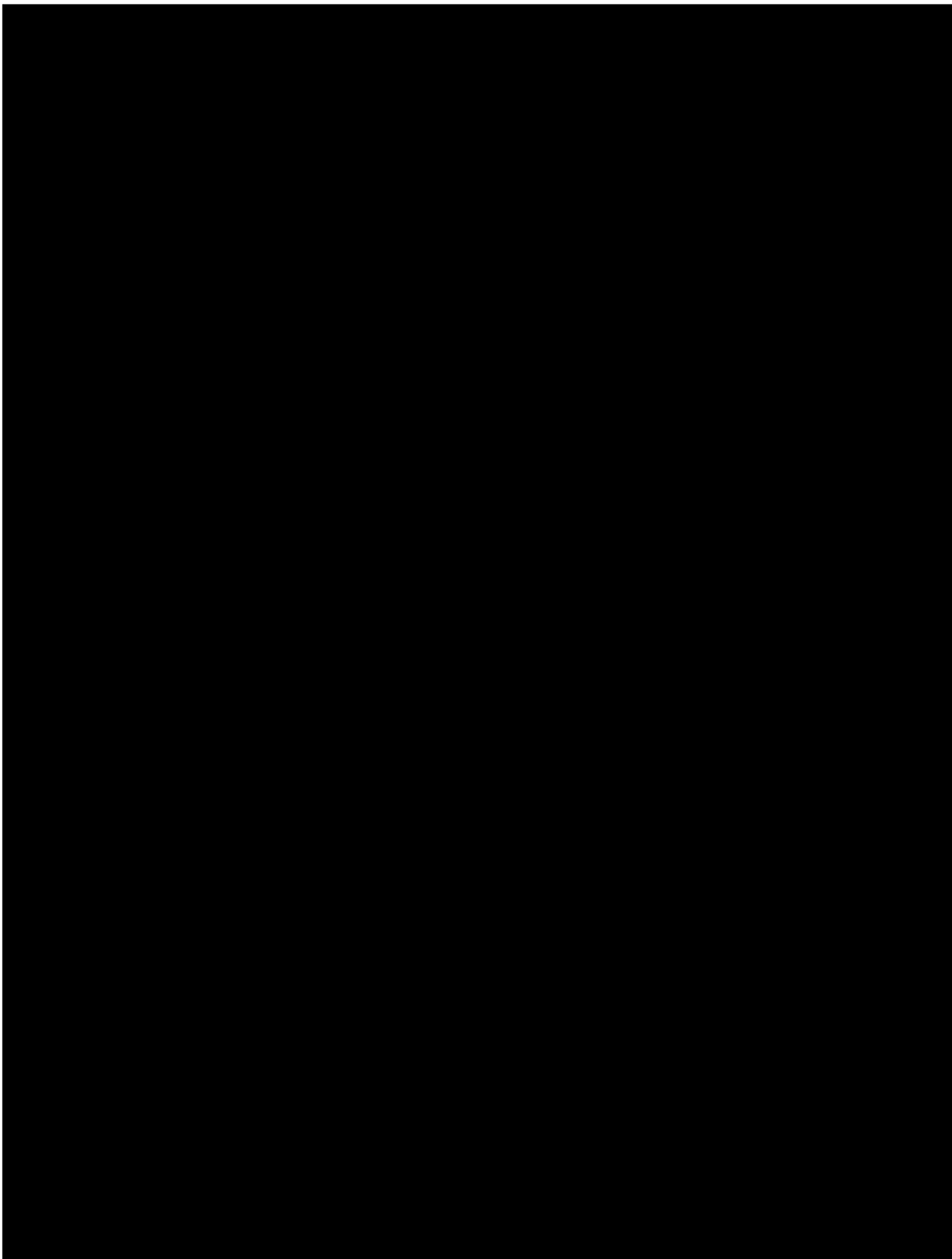
Melissa Lehman

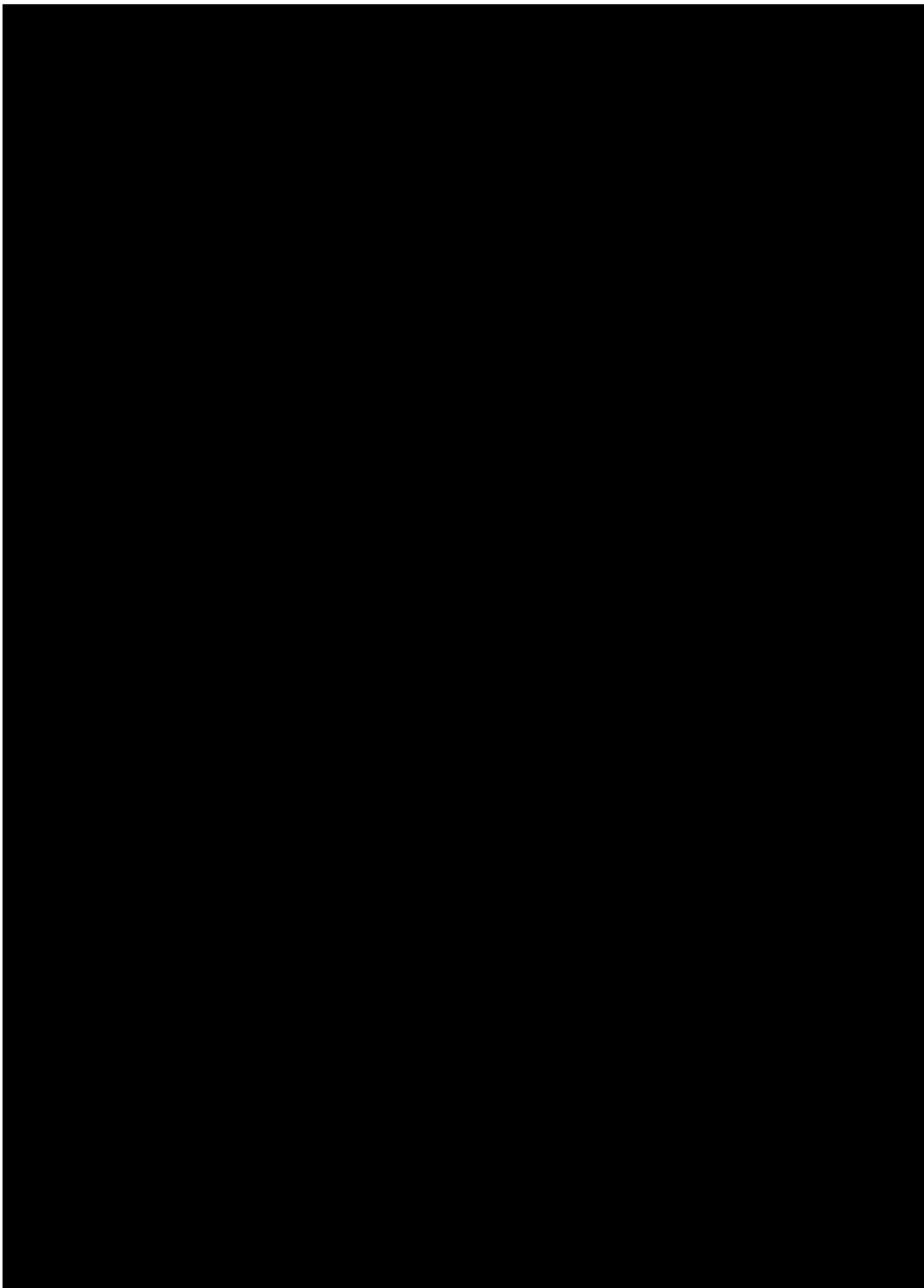
PO Box 340

Topeka, IN 46571

(260) 593-2092







Silver Creek Poultry LLC

Cass County

Odor Management Plan

Overview

Silver Creek Poultry LLC is proposing to build a new layer facility on their 40 acre parcel in Cass County. These buildings will be positioned in the middle of the parcel. The MI odor print map indicates that most of the odor will travel north and east of the barn. The aerial map shows that there's nothing present in the odor plume except for the surrounding trees former gravel pit area according to the model.

Odor Source Identification

The odor source identification information is located on the Michigan OFFSET Odor print on the next pages. It shows that 95% of time the odor will not go more than 0.07 miles (369 feet) from the barn. There are no homes within the odor plume. These barns are located in an agricultural and rural area. The main times of odor concern will be during the transport and land application of the poultry litter, which will occur once per year when the barns are cleaned out. All of the litter will be transported off site for land application by area farmers.

Odor Management Practices

- Have a ventilation fan system in each barn to help constantly disperse the odor.
- Keep the water lines properly adjusted to avoid having wet litter areas (ammonia problems).
- Additional practices will be considered if odor concerns arise at the site.

Odor Tracking and Response

Silver Creek Poultry LLC plans to track odor by having all communication line open between himself and his neighbors, be aware of odors and report them as they travel and work around and community.

Response to odor complaints reported by neighbors should include an investigation of the primary odor incident source on the farm. Determine the cause of the odor, land application, agitation of manure storage, cleaning the barn, weather conditions. The farm then needs to report back to the person with the odor complaint within 24 hours. They should explain the reason for the odor event, acknowledge the concern expressed, and any steps that will be taken to prevent further odors in the future. Be sure to thank them for bringing it to the farms attention.

Community Relations

In order to develop and maintain a positive relationship with the entire community in the future, the following steps are planned:

1. Keep the farmstead area esthetically pleasing.
2. Additional opportunities to strengthen community relations will be considered whenever they arise.

Emergency Manure Spill Plan

An emergency spill plan has been developed and will be located in the producers black operating records binder located in the farm office.

Veterinary Waste Disposal

There will be no veterinary waste at this site since the birds are antibiotic free organic birds.

Mortality Disposal

Silver Creek Poultry LLC is planning to build a small mortality composter in the corner of one of the manure storages to handle the dead birds from this operation. The mortalities are to be transported and put into the correct compost bin within 24 hrs of the animals death.

MI OFFSET 2018 Centroid Worksheet

Prepared by:		Agronomic Solutions LLC										
Site:		Silver Creek Poultry LLC										
Production Area Name	Odor Source	Type	Livestock Housing or Manure Storage Type	Latitude of building or storage center	Longitude of building or storage center	Area Sq. Ft.	Odor Emission Number	Odor Reduction / Odor Control Tech	Odor Control Factor	Odor Emission Factor		
1	Poultry	Broiler	litter (broiler)	42.045863	-86.154703	21,000	1	None	1.0	2.1		
2	Poultry	Broiler	litter (broiler)	42.045856	-86.154324	21,000	1	None	1.0	2.1		
3	Poultry	Broiler	litter (broiler)	42.047277	-86.154699	21,000	1	None	1.0	2.1		
4	Poultry	Broiler	litter (broiler)	42.047273	-86.154324	21,000	1	None	1.0	2.1		
5	Manure_Storage	Solid	crusted manure stockpile	42.044845	-86.154516	3,600	2	None	1.0	0.7		
6	Manure_Storage	Solid	crusted manure stockpile	42.048348	-86.154515	3,600	2	None	1.0	0.7		
7								None	1.0	0.0		
8								None	1.0	0.0		
9								None	1.0	0.0		
10								None	1.0	0.0		
11								None	1.0	0.0		
12								None	1.0	0.0		
13								None	1.0	0.0		
14								None	1.0	0.0		
15								None	1.0	0.0		
16								None	1.0	0.0		
17								None	1.0	0.0		
18								None	1.0	0.0		
19								None	1.0	0.0		
20								None	1.0	0.0		
21								None	1.0	0.0		
22								None	1.0	0.0		
23								None	1.0	0.0		
Total Odor Emission Factor =											9.8	
Centroid Location (Lat, Long) =											-86.154513	-42.046572

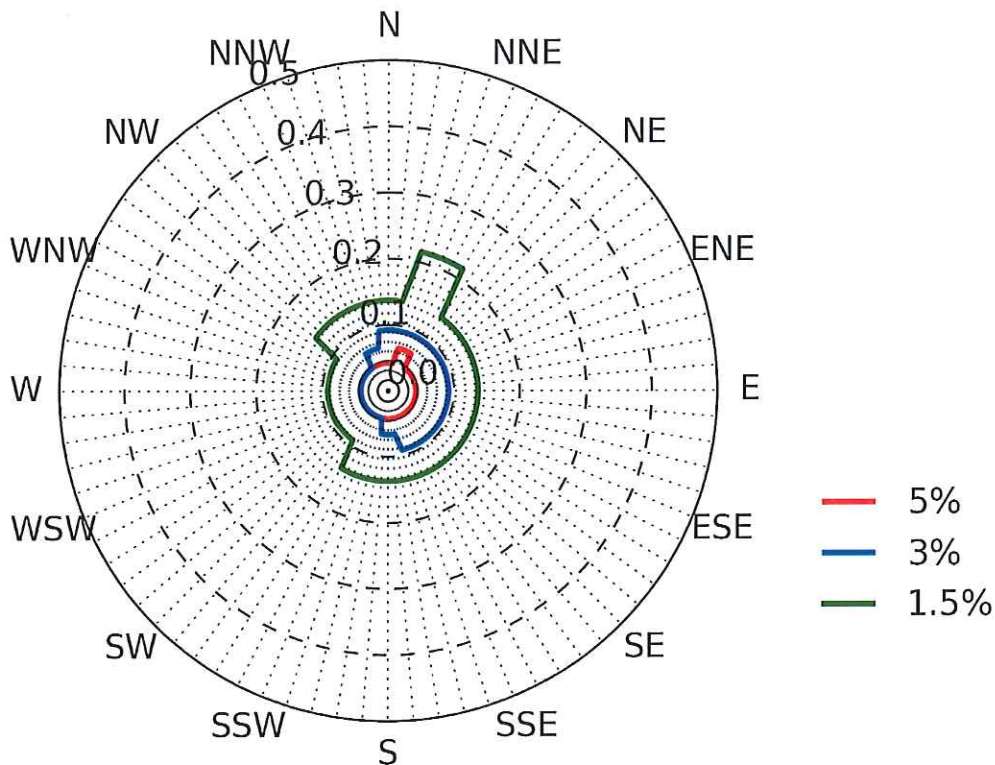
MI OFFSET Livestock Operation

Latitude: 42.046572, Longitude: -86.154513

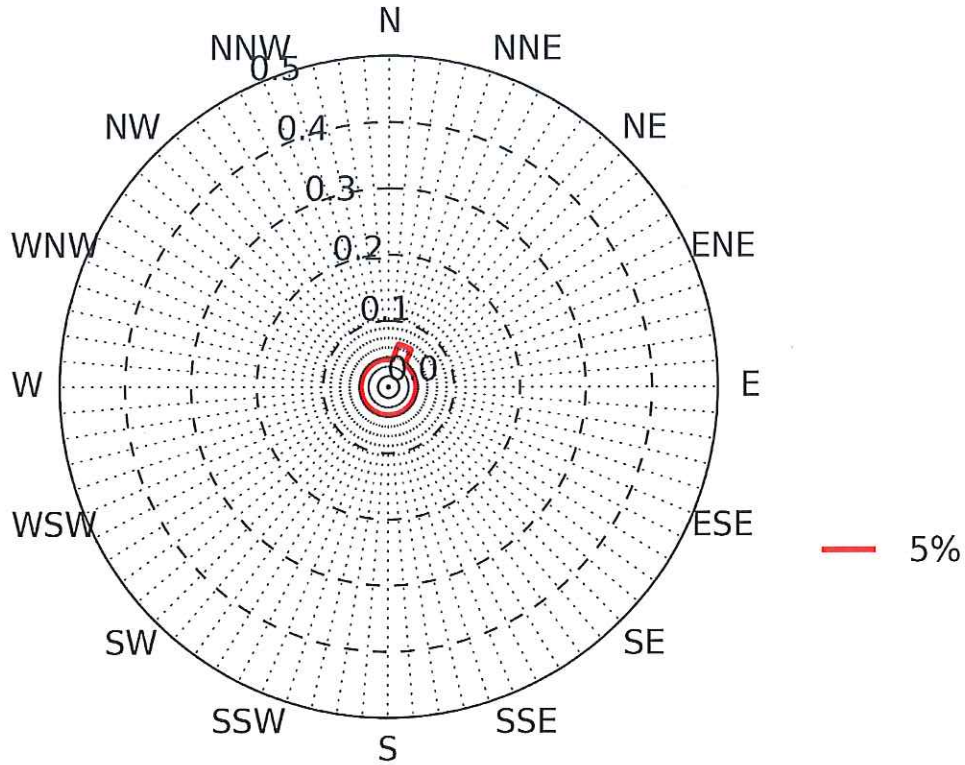
Summary of Odor Emission Factors: Animal units and waste storage entries

Odor emission factor manually entered as 9.8

MI Odor Print - Distance in Miles
(Total Odor Emission Factor = 9.8)



MI Odor Print - Distance in Miles
 (Total Odor Emission Factor = 9.8)



Toward Distance_in_Miles

	5%	3%	1.5%
N	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.07	0.09	0.22
-	0.07	0.09	0.22
NNE	0.07	0.09	0.22
-	0.07	0.09	0.22
-	0.07	0.09	0.22
-	0.04	0.09	0.14
-	0.04	0.09	0.14
NE	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14
ENE	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14
-	0.04	0.09	0.14

- 0.04 0.09 0.14
E 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
ESE 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
SE 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
SSE 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14
- 0.04 0.07 0.14
- 0.04 0.07 0.14
S 0.04 0.07 0.14
- 0.04 0.07 0.14
- 0.04 0.07 0.14
- 0.04 0.04 0.14
- 0.04 0.04 0.14
SSW 0.04 0.04 0.14
- 0.04 0.04 0.14
- 0.04 0.04 0.14
- 0.04 0.04 0.09
- 0.04 0.04 0.09
SW 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
WSW 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
W 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
WNW 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.09
- 0.04 0.04 0.14
- 0.04 0.04 0.14
NW 0.04 0.04 0.14
- 0.04 0.04 0.14
- 0.04 0.04 0.14
- 0.04 0.07 0.14

- 0.04 0.07 0.14
NNW 0.04 0.07 0.14
- 0.04 0.07 0.14
- 0.04 0.07 0.14
- 0.04 0.09 0.14
- 0.04 0.09 0.14

Legend

-  5% footprint
-  Barn
-  OF=9.8



Silver Creek Poultry LLC
 Odor Print

Google Earth

Michigan Department of Agriculture

Right to Farm Program

**CONSTRUCTION DETAILS &
SOILS INVESTIGATION REPORT**

For:

Silver Creek Poultry LLC

7850 Lake Rd

Berrien Center, MI 49102

Cass County

Prepared By:

Agronomic Solutions, LLC

Melissa Lehman

PO Box 340

Topeka, IN 46571

(260) 593-2092

Silver Creek Poultry LLC
7850 Lake Rd
Berrien Center, MI 49102

Construction Information

All of the construction information is located on the following pages.

The soils investigation shows that the site will not be affected by the seasonal water table because there is no water in the soil. The site is located in an old gravel pit and soils are very sandy. We completed the soils investigations for their layer barn buildings and stacks (P1) to at least a depth of 30" because of the concrete floors. The actual sampling depths vary due to the elevation of the ground, which is marked on the soil boring map.

The soils investigation was completed by Tom Eickholtz, Indiana Certified Soil Scientists and the information can be found behind the engineering prints.

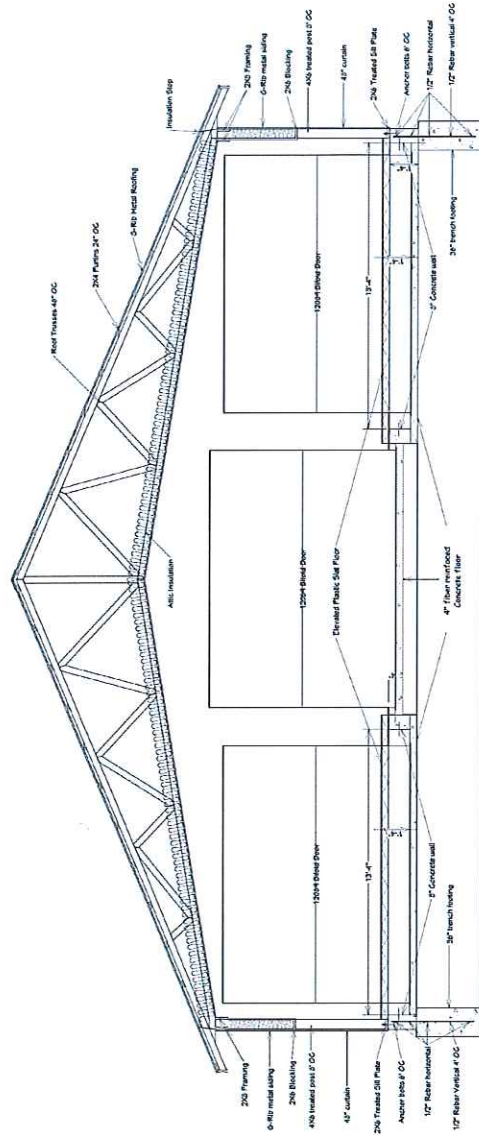
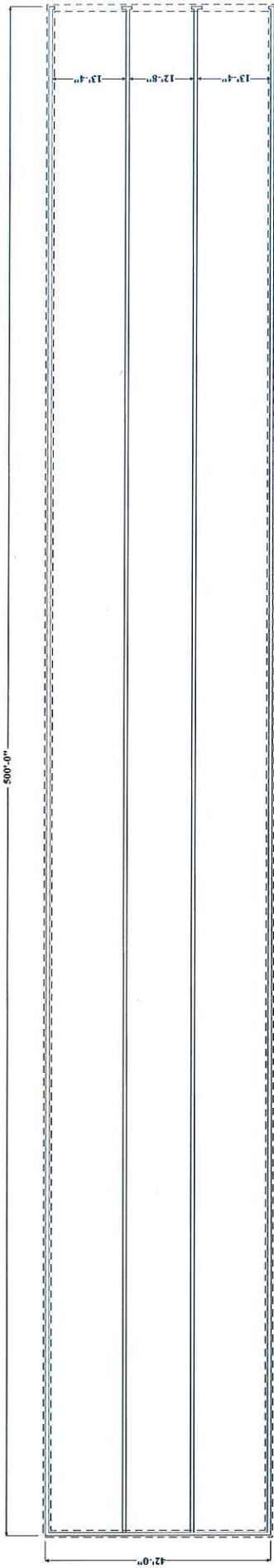
Construction Details for Layers Barns

Attached is a general building drawing of the proposed 42'x500' Miller Poultry layer barn. The solid manure barns will be constructed with concrete floors and footers and be completely enclosed and covered with a roof, as shown on the prints.

We have also included the most recent MI NRCS Concrete Specifications that are dated March 2016 with the construction information.

The actual manure storage or area where the birds will be is 500' x 42'. This area equals 21,000 ft³ of manure storage, assuming a 12 inch manure depth. The barns themselves provide more than adequate manure storage with 861 days. The layer barns will run one batch of layers per year. In between batches of layers, the barn will be completely cleaned out and carefully disinfected. The majority of the litter produced will be removed from the barn once a year.

42'x500' Layer Barn



Silver Creek Poultry LLC
 7850 Lake Rd
 Berrien Center, MI 49102



2-28-23

M. R. P.

WALLS AND SLAB NOTES

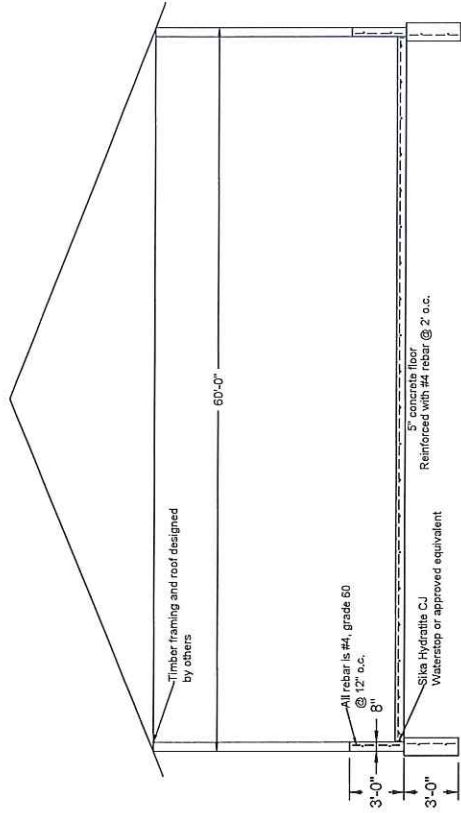
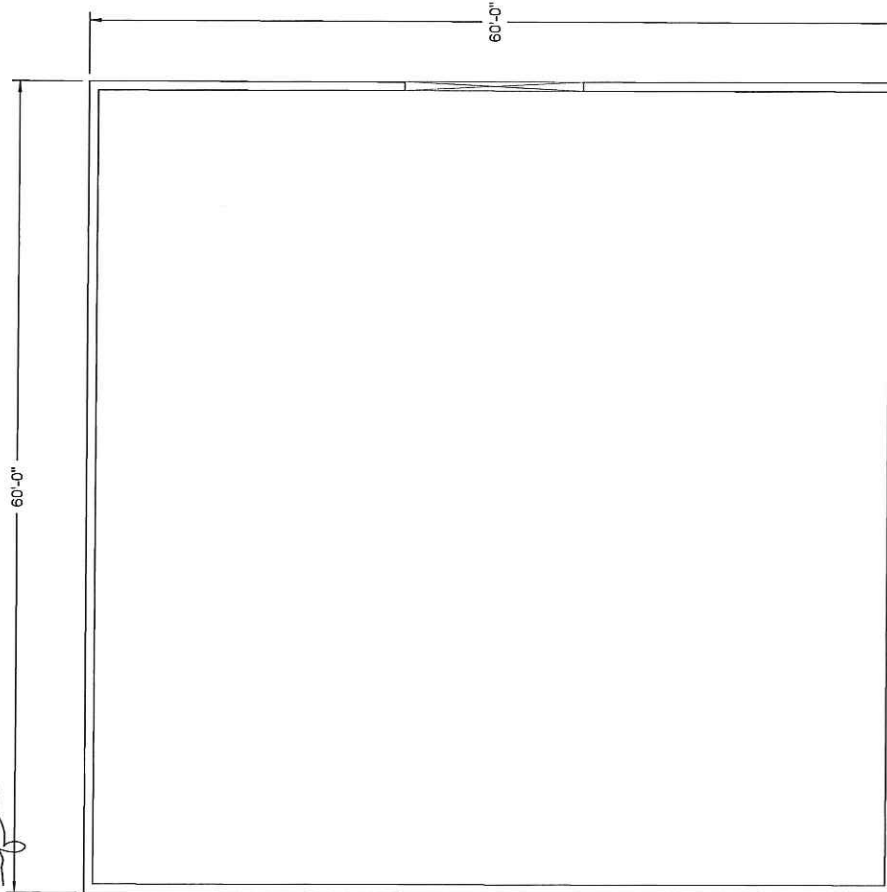
CONCRETE

1. ALL SLAB AND WALL CONCRETE SHALL BE PORTLAND CEMENT STONE AGGREGATE CONCRETE, HAVING A MINIMUM 28-DAY COMPRESSIVE STRENGTH $f'_{c} = 4000$ PSI. THE MIX DESIGN SHALL BE SUBMITTED TO THE ENGINEER FOR APPROVAL PRIOR TO PLACEMENT. THE FOLLOWING REQUIREMENTS APPLY:

MAXIMUM WATER TO CEMENT RATIO, $w/c = 0.45$
 TYPE I CEMENT OR TYPE 1L BLENDED CEMENT - GENERAL PURPOSE
 SLUMP: 4 IN. PLUS OR MINUS 1 IN.
 AIR CONTENT FROM 4 TO 8 PERCENT
 AGGREGATE SIZE: MAXIMUM OF 1 INCH IN DIAMETER
 CURE CONCRETE FOR A MINIMUM OF 7 DAYS
 ACCEPTABLE CURING METHODS ARE:
 MEMBRANE FORMING CURING COMPOUND
 CONTINUOUS SPRAY WATER SOAK

2. ALL EDGES OF FORMED CONCRETE THAT IS TO BE EXPOSED SHALL BE CHAMFERED 1 IN.
 3. CLEAR COVER OF CONCRETE OVER REINFORCING STEEL SHALL BE 2 INCHES UNLESS OTHERWISE SHOWN.
 4. REFER TO THE MANUFACTURER'S RECOMMENDATIONS FOR INSTALLING WATERSTOP MATERIAL.

Top View



Side View

Agronomic Solutions LLC
 PO Box 340
 Topeka, IN 46571

Manure Storage

Silver Creek Poultry LLC
 7850 Lake Rd
 Berrien Center, MI 49102

Date: 2/13/2023
 Barn: Storages

Sheet
 1 of 1

CONSTRUCTION SPECIFICATION

MI-158. REINFORCED CONCRETE

1. SCOPE

This specification covers steel reinforced concrete construction. This specification only covers construction performed when the anticipated daily low air temperature is 40° F or higher for at least three days after placement unless the site conditions and/or the construction methods to be used have been reviewed and approved in writing by the NRCS engineer or their designated representative.

2. PREPARATION OF FORMS AND SUBGRADE

Place concrete on a smoothly graded soil or sand subgrade well compacted, to a uniform density throughout, unless otherwise indicated on the construction drawings. Correct over-excavation with a procedure approved by the NRCS inspector.

Ensure forms and subgrade are free of wood chips, sawdust, debris, standing water, ice, snow, extraneous form release agent, mortar, or other harmful substances or coatings prior to the placement of concrete.

Place concrete on firm and damp surfaces. Placement of concrete on plastic, mud, dried earth, uncompacted fill or frozen subgrade will not be permitted.

3. FORMS

Use forms of wood, plywood, steel or other mortar tight approved material. If using constructed forms, fabricate substantial and unyielding forms so that finished concrete will conform to the specified dimensions and contours. Use form release agents appropriate for the form materials and concrete admixtures. Apply form release agents prior to putting the forms up. Form ties may be metal, plastic or fiberglass.

Embed items in the concrete accurately and anchor firmly.

Tolerance on formed concrete is $\pm 3/8$ inch. Tolerance on concrete formed in earth is -1 inch to +6 inches.

4. REINFORCING STEEL

Use deformed bars manufactured specifically for concrete reinforcement meeting a minimum of Grade 60 or as shown on the drawings (more details can be found in ASTM A615 or ASTM A996).

Use reinforcing bars that are free from loose rust, concrete, oil, grease, paint or other deleterious coatings.

Accurately place and secure reinforcing bars in position to prevent displacement during the placement of concrete. Holding reinforcing bars in position with temporary supports is not permitted. Tack welding of reinforcing bars is not permitted. Heating of reinforcing bars to facilitate bending is not permitted.

In structural members, metal chairs, metal hangers, metal spacers, high density or structural plastic rebar accessories or concrete bricks (not clay bricks) may be used to support reinforcing steel. Place metal hangers, spacers, and ties in such a manner that they are not exposed in the finished concrete surface. Use stainless steel or a protective coating or finish on the legs of metal chairs or side of form spacers that may be exposed on any

face of slabs, walls, beams, or other concrete surfaces. The coating or finish can be hot dip galvanizing, epoxy coating, or plastic coating. Use a minimum cover of 0.75 inch of concrete over the unprotected metal part of metal chairs and spacers not stainless steel or fully covered by a protective coating or finish. The exception is that those with plastic coatings may have a minimum cover of 0.5 inch of concrete over the unprotected metal part. Ensure precast concrete chairs are clean and moist at the time concrete is placed.

In slabs, support reinforcing steel by precast concrete bricks (not clay bricks), metal chairs or plastic chairs.

Do not place any reinforcing steel until the prepared site has been inspected and approved by the NRCS inspector. Do not place any concrete until the reinforcing steel is inspected and approved by the NRCS inspector.

The following tolerances will be allowed in the placement of reinforcing bars.

- a. Where 1 1/2 inches clear distance is shown between reinforcing bars and forms, allowable clear distance is 1 1/8 to 1 1/2 inches.
- b. Where 2 inches clear distance is shown between reinforcing bars and forms, allowable clear distance is 1 5/8 to 2 inches.
- c. Where 3 inches clear distance is shown between reinforcing bars and earth or forms, allowable clear distance is 2 1/2 to 3 inches. Over-excavation backfilled with concrete will not count toward clear distance.
- d. Maximum variation from indicated reinforcing bar spacing: 1/12th of indicated spacing, but no reduction in amount of bars specified.
- e. Minimum cover for ends of all reinforcing bars is 1 1/2 inches of concrete.

Unless otherwise indicated on the drawings, provide lap splices of reinforcing bars of not less than 30 diameters of the smaller bar and not less than 12 inches. Bars will not be spliced by welding. Welded wire fabric shall be lapped at least one mesh width.

5. CONCRETE MIX

Provide the NRCS inspector a batch ticket showing the following information as a minimum:

- name of redi-mix company;
- date;
- truck number;
- name and location of job;
- amount of concrete in cubic yards;
- time of loading;
- type, brand, and amount of cement;
- grade or class and amount of pozzolan if applicable;
- type, brand, and amount of admixtures;
- Michigan Department of Transportation (MDOT) type and amount of aggregates;
- free water of all aggregates;
- amount of batch water;
- water to cement ratio;
- signature or initials of concrete producer or producer's representative

Any concrete load delivered without a batch ticket containing the above information is to be rejected by the contractor or landowner.

Use of Type I or II (Type II is preferred) Portland cement meeting the requirements of ASTM C150 is required. Type III cement may be used as part of a cold weather

concreting plan. The use of cement that is partially hydrated (hardened), or otherwise damaged, is not permitted. Fly ash meeting the requirements of ASTM C618 (Class F or C) may replace cement in quantities ranging from 15-25 percent by weight of the total required cementitious materials. Ground blast furnace slag meeting the requirements of ASTM C989 may replace cement in quantities ranging from 30-50 percent by weight of total required cementitious materials. Silica fume meeting the requirements of ASTM C1240 may replace cement in quantities ranging from 5-10 percent by weight of total required cementitious materials. Cementitious materials shall be within $\pm 1\%$ of the mix design weight.

Air entrainment is required for concrete exposed to freeze-thaw cycles and in contact with the ground or frequent exposure to moisture. For a maximum aggregate size of 3/8 inch to 1 inch the allowable air content at the time of placement is 5-7%. For a maximum aggregate size of over 1 inch, the allowable air content at the time of placement is 4-6%. Concrete protected from moisture by an impervious material or cover, or from freezing during its design life may have a total air content as specified above based on maximum aggregate size.

Aggregates are required to be clean, hard, strong and durable particles that are free of silt, clay or any other material that may affect bonding of the cement paste. Tolerance for the batched aggregate weight from the mix design is $\pm 2\%$. Fine aggregate meeting the requirements of ASTM C33 fine aggregate or MDOT 2NS is required. Coarse aggregate meeting the requirements of ASTM C33, size numbers 57 or 67 or MDOT Classes 6A or 17A. Use of other aggregate sizes is not permitted without prior approval from the NRCS inspector.

The maximum water/cement ratio (W/C Ratio) for any condition is 0.50. Use of water that is clean and free of injurious amounts of oil, salt, acid, alkali, organic matter or other deleterious substances is required. Include aggregate moisture (both fine and coarse) in the total water quantity calculations.

Water reducing admixtures conforming to ASTM C494, Types A, D, F, or G may be used. Types D or G may be used at the discretion of the contractor/supplier when the air temperature is over 70° F.

The slump of the concrete without water reducers will be 3 to 5 inches. Maximum slump of concrete prior to adding Type A or D water reducers is 4 inches and maximum slump after adding Type A or D water reducers is 6 ½ inches. Maximum slump of concrete prior to adding Type F or G (high range) water reducers is 2 ½ inches and maximum slump after adding Type F or G water reducers is 7 ½ inches.

Where the design concrete strength shown on the drawings is 3500 psi or less, a mix containing the materials and properties referenced above, and the cementitious material and water quantities shown below in options 1 or 2, may be accepted without strength tests:

Option	Min. Cementitious Material lb./cu. yd.	Max. W/C Ratio (Water Amounts) lb./cu.yd.
1	564	0.50
2	517	0.45

Where the design concrete strength is greater than 3500 psi or where the cementitious material quantities are less than shown above in options 1 or 2, the minimum 28-day compressive strength is 3,500 psi or the minimum specified in the drawings, as shown by strength tests. Perform compressive strength tests as a minimum, once each day concrete is placed; once for each 150 cubic yards of concrete placed; or once for each 5000 sq. ft. of surface area of slabs and walls.

ADDITIONAL REQUIREMENTS FOR AGRICHEMICAL HANDLING FACILITIES (AHF's)

Use of Type II or V Portland cement meeting the requirements of ASTM C150 is required. Use of fly ash, ground blast furnace slag, or silica fume in the quantities listed previously is required.

Use of the following may be accepted without strength tests for AHF's:

Min. Cementitious Material lb./cu. yd.	Max. W/C Ratio	(Water Amounts) lb./cu.yd.
564	.40	225

Where the cementitious material quantities are less than shown above for AHF's, the minimum 28-day compressive strength is 5,000 psi. Perform compressive strength tests as a minimum, once each day concrete is placed; or once for each 30 cubic yards of concrete placed.

6. MIXING AND PLACING CONCRETE

Thoroughly mix all concrete when delivered to the job site. Do not exceed the rated capacity of revolving drum truck mixers for the quantity of concrete delivered. Deliver a maximum load no greater than the truck manufacturer's recommendation for truck-mixed concrete or 63% of the gross volume of the drum, whichever is less.

Do not exceed the maximum w/c ratios listed above. Water to compensate for up to a 1-inch loss in slump (up to 1 gallon/cu. yd.) may be added, not to exceed the design maximum w/c ratio. Withholding some of the mixing water until the concrete arrives on the job, then adding the remaining water and turning the mixer 30 revolutions at mixing speed is allowed if the truck has a functioning sight gauge or meter, and the before and after readings are recorded on the batch ticket and initialed by the purchaser or their representative. Adding water on-site to the truck can only be done once per load and should be done before any significant quantity of concrete is discharged.

When adding admixtures on the job, turn the mixer a minimum of 30 revolutions at mixing speed before discharging the concrete.

Do not place concrete until the subgrade, forms and steel reinforcement have been inspected and approved by the NRCS inspector. Notify the inspector a minimum of 72 hours in advance to provide time for inspection.

Discharge concrete into the forms, vibrate and spade within 90 minutes after the cementitious materials have been introduced into the aggregates. When air temperatures are above 85°F, this time is reduced to 45 minutes. The inspector may allow a longer time if an approved set retarding admixture is used.

Deposit concrete as close as possible to its final position. Concrete without Type F or G water reducers will not be allowed to drop more than 5 feet from a chute or "elephant trunk". Concrete with Type F or G water reducers will not be allowed to drop more than 12 feet from the chute or "elephant trunk". If concrete must be dropped more than allowed above, use hoppers and chutes, "elephant trunks", etc., to prevent segregation.

Do not allow concrete to flow laterally more than 8 feet. If required to move concrete laterally more than 8 feet, use of shoveling, chutes, conveyors, wheelbarrows or similar equipment is required.

Place concrete in slabs at design thickness in one layer. Place concrete in walls at essentially horizontal layers not more than 24 inches high. Place successive layers and consolidate fast enough to ensure a good bond between layers and to prevent "cold joints". If the surface of a layer in place will develop its initial set before more concrete is placed on it, use of a construction joint (of the type shown in the plan) is required.

Immediately after placement, consolidate concrete by spading and vibrating, or spading and hand tamping. Consolidate wall concrete with internal type mechanical vibrators. Work concrete into corners and angles of the forms and around all reinforcement and embedded items in a manner which prevents segregation or the formation of "honeycomb". Vibration is not to be used to make concrete flow in the forms.

Ensure concrete surfaces are smooth and even. Careful screeding (striking-off) and/or wood or magnesium float finishing are required. If an impervious, protective coating will be applied to the surface of the concrete, follow the coating manufacturer's recommendations for surface preparation.

The addition of dry cement or water to the surface of screeded concrete to expedite finishing is not allowed.

7. FORM REMOVAL AND CONCRETE REPAIR

Do not remove structure wall forms until 24 hours or more after concrete placement. When forms are removed in less than 7 days, spray the concrete with a curing compound or keep continuously wet by methods allowed in Section 8 of this specification.

Remove forms in such a way as to prevent damage to the concrete. Remove forms before walls are backfilled.

Remove form ties flush with or below the concrete surface. Patch form ties that are removed to a depth of 1/2 inch or greater with dry-pack mortar. Dry-pack mortar is one part Portland cement and three parts sand, with just enough water to produce a workable consistency.

Remove areas of the concrete surface where the concrete is "honeycombed", damaged or otherwise defective. Wet the area and then fill with a dry-pack mortar. Remove and/or repair damaged or defective concrete so as to retain the structural integrity of the member.

8. CURING

Prevent concrete from drying for at least 7 days after it is placed. Keep exposed surfaces continuously moist during this period by flooding, misting, covering with moistened canvas, burlap, straw, sand or other approved material, unless they are sprayed with a curing compound or covered with a 4 mil or thicker polyethylene. Keep forms left in place during the curing period wet.

If an impervious, protective coating will be applied to the surface of the concrete, follow the coating manufacturer's recommendation for concrete curing beyond the 7 days required above. Other concrete, except at construction joints, may be coated with a curing compound in lieu of continued application of moisture. Spray the compound on moist concrete surfaces as soon as free water has disappeared, but not on any surface until patching, repairs and finishing of that surface are completed.

Apply curing compound in a uniform layer over all surfaces requiring protection at a rate of not less than 1 gallon per 150 square feet of surface or to manufacturer's recommendations.

9. CONCRETING IN COLD WEATHER

Do not mix or place concrete when the daily atmospheric low temperature is less than 40°F unless facilities are provided to prevent the concrete from freezing. The contractor will furnish to NRCS, for approval, a written plan that shows how the contractor will meet the requirements of this specification.

Minimum requirements for cold weather concreting are:

- a. Use of warm concrete with temperatures from 55° to 65°F.
- b. Adequate protection from the weather, including, if needed, the use of artificial heat, to prevent the temperature of the concrete from falling below 50°F for a period of 3 days when using type I cement and 2 days when using a set accelerator or type III cement. Alternatively, adequate protection from the weather, including the use of artificial heat, if needed, to prevent the temperature of the concrete from falling below 40°F for a period of 6 days when using type I cement and 4 days when using a set accelerator or type III cement.
- c. Chloride accelerators such as calcium chloride may not be used to speed the hardening of concrete. Type III cement and non-chloride accelerators are allowed as part of a cold weather concreting plan.
- d. Where reinforced concrete structures will be loaded such as in backfilling walls or supporting heavy equipment, the load shall not be applied until the concrete has been tested to have at least 75% of its design strength. Test cylinders left on site until testing will be used to determine concrete strength.

10. CONCRETING IN HOT WEATHER

Hot weather precautions should be taken when air temperatures are at or above 85°F. Ensure concrete temperatures of less than 90°F during mixing, conveying and placing.

11. LOADING NEW REINFORCED CONCRETE STRUCTURES

Heavy equipment may not be operated within 3 feet of the new concrete wall.

Compaction within 3 feet of the wall will be by means of hand tamping or small hand-held tamping or vibrating equipment.

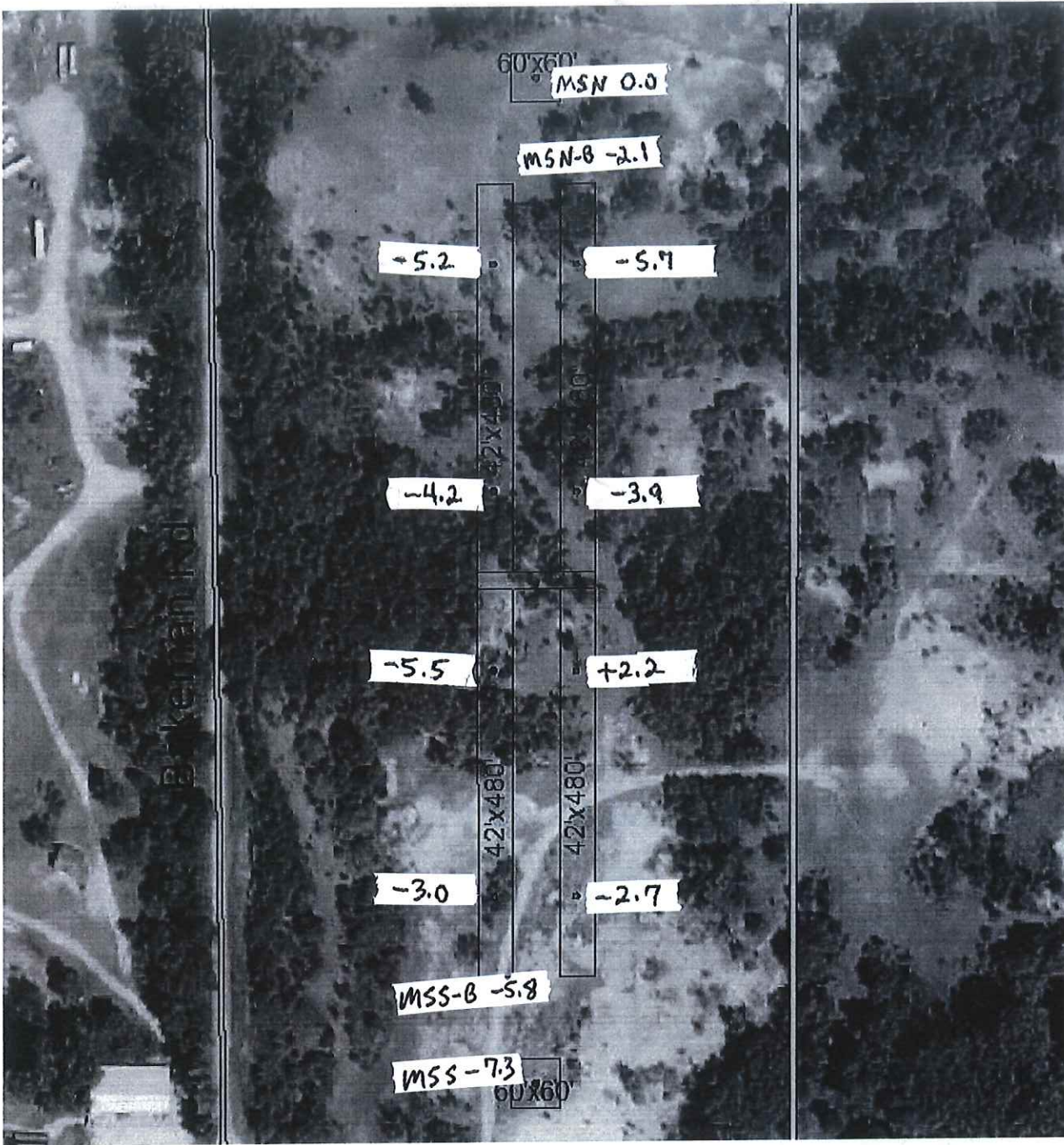
Do not begin backfilling and compaction of fill adjacent to new concrete walls in less than 10 days after placement of the concrete where the concrete temperature has been maintained at 50°F or higher or until the concrete has been tested to have at least 75% of its design strength. Test cylinders left on site until testing will be used to determine concrete strength. Use backfill material of the type indicated on the drawings and free of large stones or debris.

Heavy equipment traffic or other loads may not be applied to a new slab until the concrete has attained at least 65% of its design strength. Test cylinders left on site until testing may be used to determine concrete strength.

Concrete may be assumed to have attained at least 65% of its design strength when:

- 1) Concrete temperature has been maintained at 50°F or higher for a minimum of 7 days after placement, or
- 2) The concrete temperature has been maintained at less than 50°F, but above 32°F for 14 days after placement.

Silver Creek Poultry LLC



Site Map

-  Compost Bin
-  Property Line
-  Soil Boring Point
-  Well

Site Map

Site Address:
 ~51501 Bakeman Rd
 Dowagiac, MI 49047

Mailing Address:
 7850 Lake Rd
 Berrien Center, MI 49102
 (269) 208-5899

