

CONSTRUCTION PLAN

PRACTICE(S) 410-GRADE STABILIZATION STRUCTURE/638 - WASCOB
342-CRITICAL AREA PLANTING
LANDOWNER DUKELOW FARMS INC.
ADDRESS W2026 COUNTY ROAD B, MARKESAN, WI 53946
CONTACT PHONE NO. 920-398-3402 COUNTY GREEN LAKE
TOWNSHIP GREEN LAKE T 15 N, R 13 E, Sec. 20
FIELD OFFICE GREEN LAKE TELEPHONE NO. 920-294-4051

DIGGERS HOTLINE

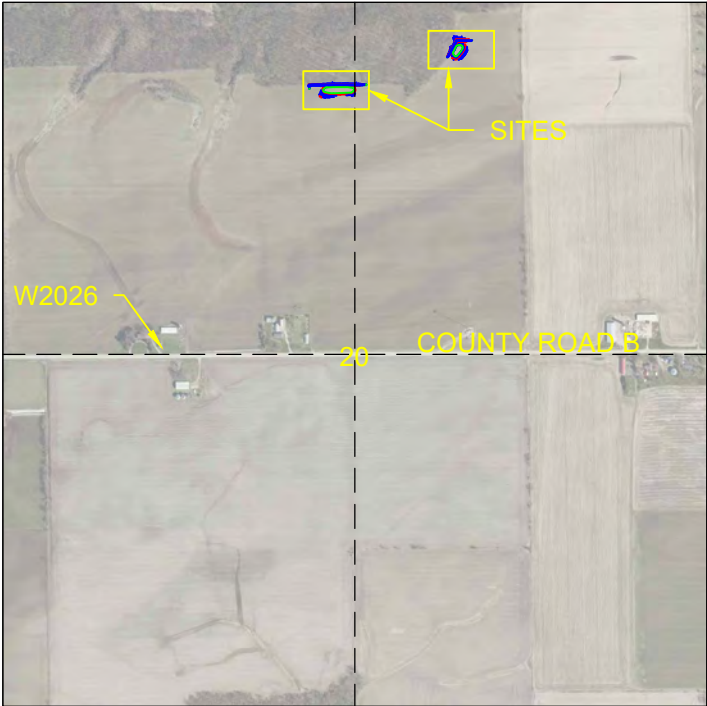
Call 3 Work Days
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Nationwide
811

Toll Free
1-800-242-8511

TDD
1-800-542-2289

Website
www.diggershotline.com



Not to
Scale

LOCATION MAP

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by the USDA, Natural Resources Conservation Service, or the GREEN LAKE County LCD, as to the approximate location or nonexistence of above or under ground hazards does not relieve the owner of the property or the excavator that is hired to complete construction, from notifying Diggers Hotline of the pending construction. You will be liable for damages resulting from construction activities.
Call Diggers Hotline! Ticket Number _____

CONSTRUCTION DRAWINGS AND SPECIFICATIONS ACCEPTANCE

I have reviewed and understand the construction plans and specifications and agree to complete the work accordingly. Failure to meet these plans and specifications may jeopardize any continued NRCS technical assistance or program cost sharing applied for. I understand that it is my responsibility to secure all necessary permits and licenses, and to complete the work in accordance with all local, state, and federal laws. Modification of these construction plans or specifications must be approved by the NRCS before installation. I assume all responsibility for negotiations and contract agreements with the construction contractors.

Landowner Signature: Rhonda Bocek Date: 10/28/2025

Designed by: Todd Morris Date: 10/16/2025

Checked by: Parker Richter Date: 10/20/2025

Approved by: Jordan Dorufeld Date: 10/29/2025

The installed practices comply with applicable NRCS technical standards and specifications. The "redlined" construction plans (as-built drawings) reflect changes made during construction.

Construction Approved by: _____ Date: _____

Job Approval Class 410 - II (Based on 638 Criteria)

ESTIMATED QUANTITIES

ITEM	UNIT	QUANTITY	SHEET NUMBER	WI. CONSTRUCTION SPEC. OR JOB SHEET NUMBER
GRADE STAB. STRUCTURES	NO.	2	2,5	
EXCAVATION/EARTHFILL - TOTAL	CU.YD.	1375	2,3,4, 5,6,7	WI CONST. SPEC. 02 & 03
8" HICKENBOTTOM TOP - 1" HOLES	NO.	1	3,4	WI CONST. SPEC. 15
8" HICKENBOTTOM MID - 5/16" HOLES	NO.	1	3,4	WI CONST. SPEC. 15
8" HICKENBOTTOM BLIND TEE	NO.	1	3,4	WI CONST. SPEC. 15
8" PE PIPE	FEET	30	2,3,4	WI CONST. SPEC. 15
8" PVC PIPE	FEET	10	2,3,4	WI CONST. SPEC. 15
8" ANIMAL GUARD	NO.	1	4	WI CONST. SPEC. 15
10" HICKENBOTTOM TOP - 1" HOLES	NO.	1	6,7	WI CONST. SPEC. 15
10" HICKENBOTTOM MID - 5/16" HOLES	NO.	1	6,7	WI CONST. SPEC. 15
10" HICKENBOTTOM BLIND TEE	NO.	1	6,7	WI CONST. SPEC. 15
10" PE PIPE	FEET	40	5,6,7	WI CONST. SPEC. 15
10" PVC PIPE	FEET	10	5,6,7	WI CONST. SPEC. 15
10" ANIMAL GUARD	NO.	1	7	WI CONST. SPEC. 15
1 1/2" CLEAR STONE	CU. YD.	4	3,4, 6,7	WI CONST. SPEC. 12
CLASS II NONWOVEN GEOTEXTILE	SQ. FT.	266	8	WI CONST. SPEC. 13
D50 6" RIPRAP	CU. YD.	10	3,8	WI CONST. SPEC. 09
SEEDING	ACRES	1.2	2,5,9	WI 710-SS

Quantities are estimated to the neat lines and grades of in-place materials shown on the construction plan unless otherwise stated. Truck yardage, loose fill, shrinkage, etc., must be calculated and compensated for by the contractor preparing a bid or constructing the project.



United States
Department of
Agriculture

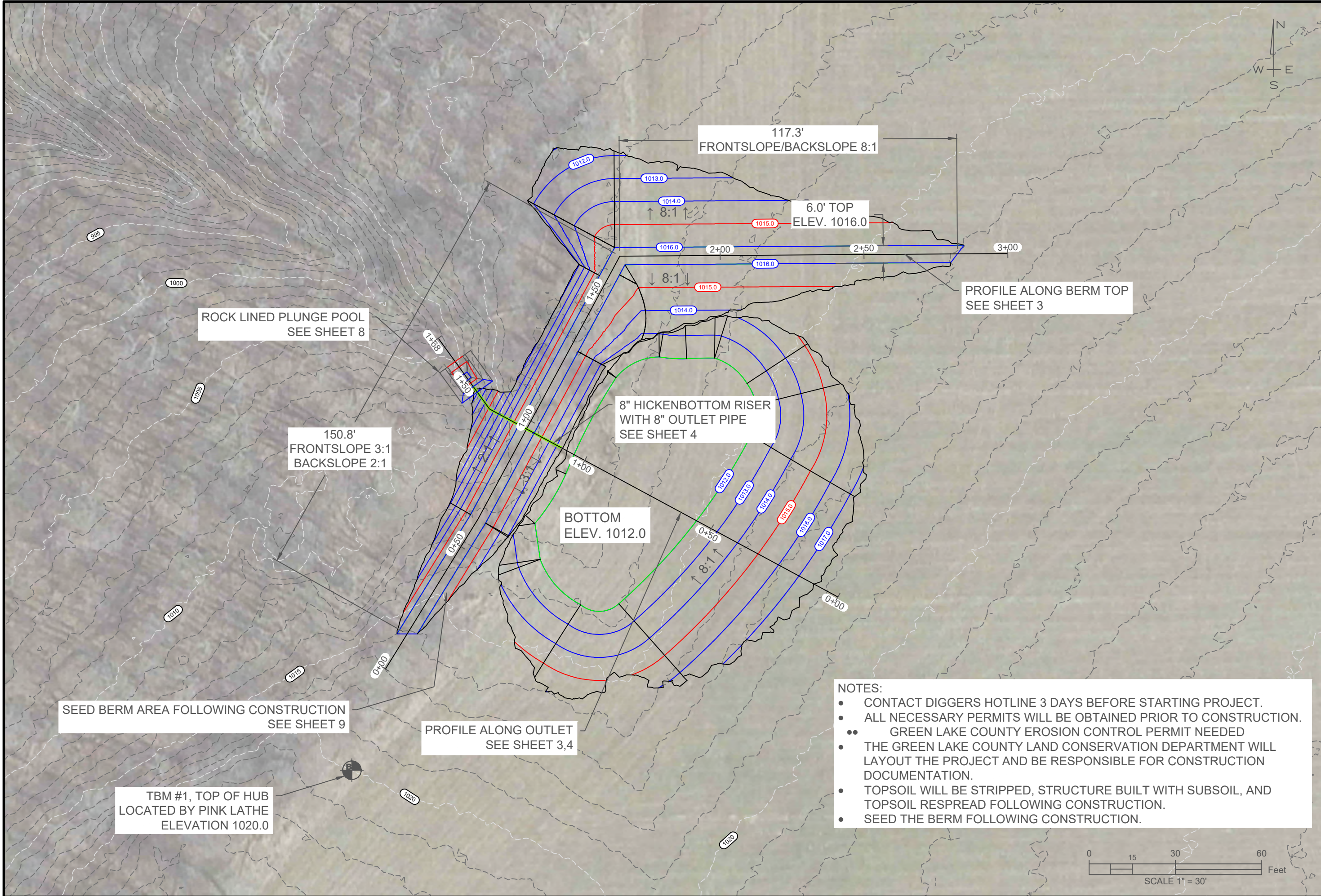
Natural Resources
Conservation Service

ESTIMATED QUANTITIES

CLIENT: DUKELOW FARMS INC
COUNTY: GREEN LAKE

Designed T. MORRIS Date 08/25/25
Drawn _____
Checked _____
Approved _____

Drawing Name WI-005
Date 05/15
Sheet 1 of 9



Designed	T. Morris	Date	08/25/25
Drawn			
Checked			
Approved			

Plan View – EAST

OWNER: DUKELOW FARMS INC.

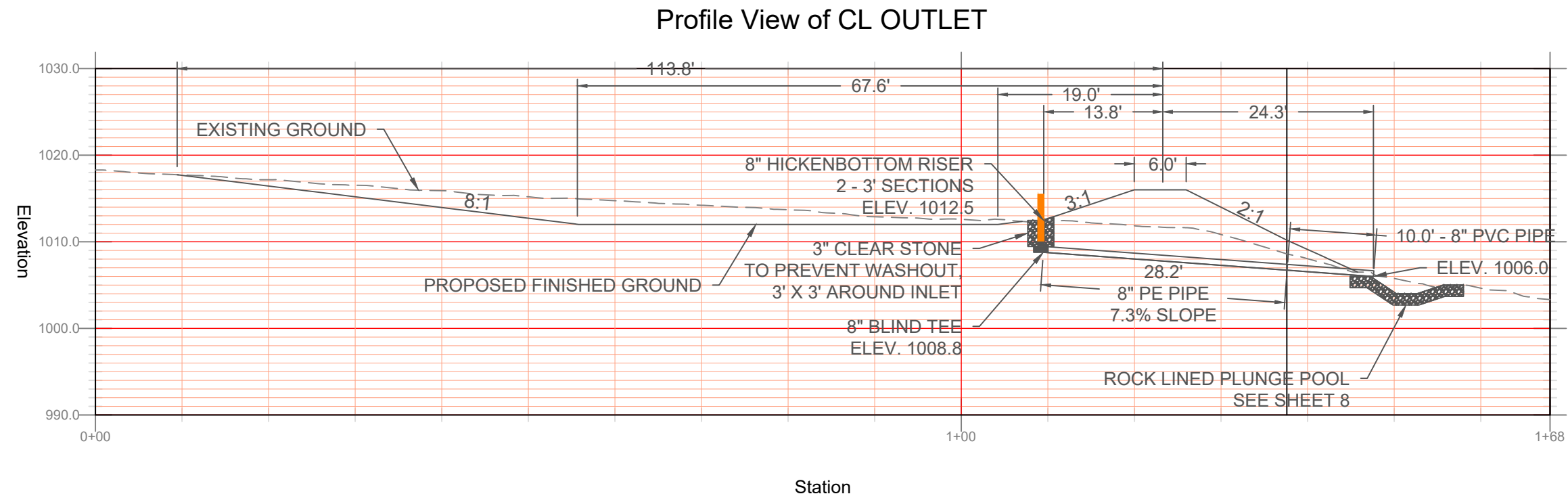
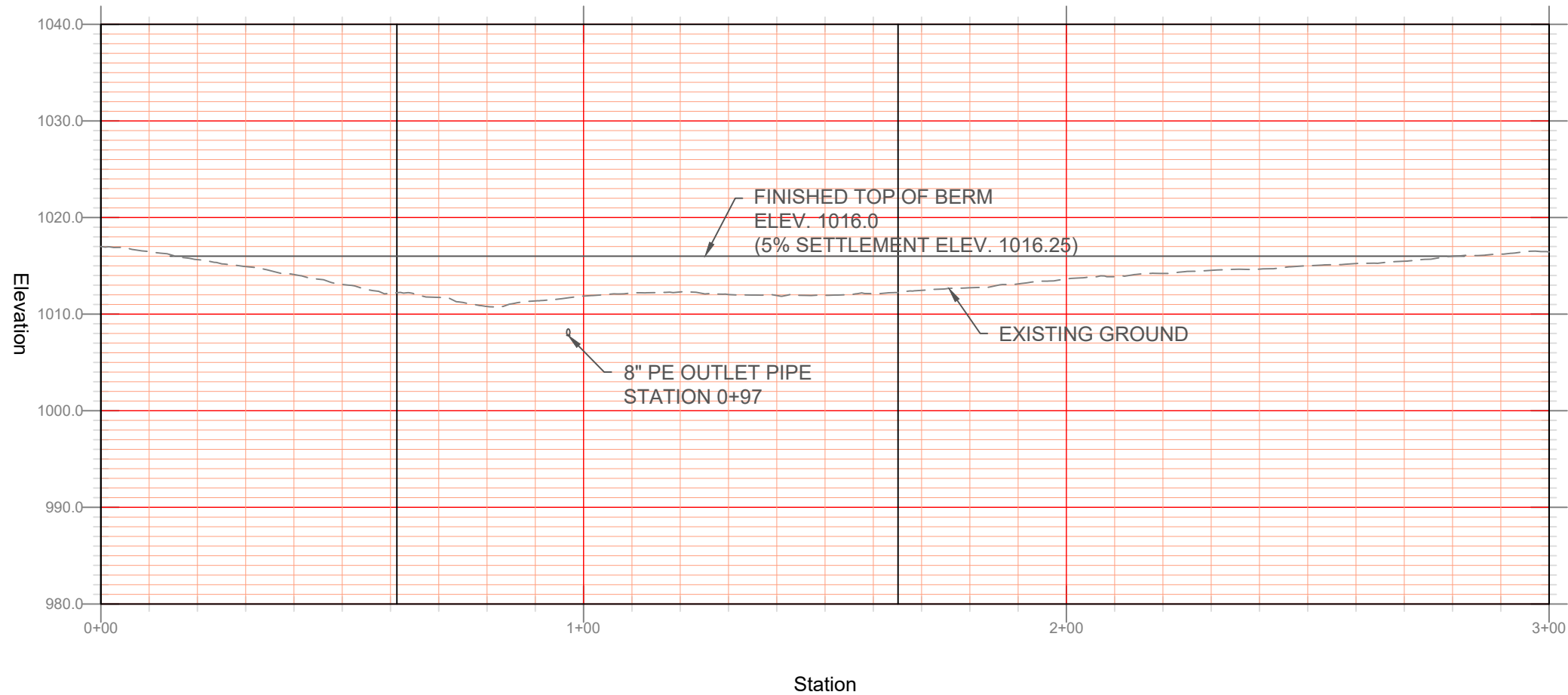
COUNTY: GREEN LAKE

United States
Department of
Agriculture
USDA
Natural Resources
Conservation Service

Drawing Name
WI-014

Date
06/2018

Sheet 2 of 9



Date 08/25/25

Designed T. MORRIS

Drawn

Checked

Approved

Profile - EAST

OWNER: DUKELOW FARMS INC.

COUNTY: GREEN LAKE



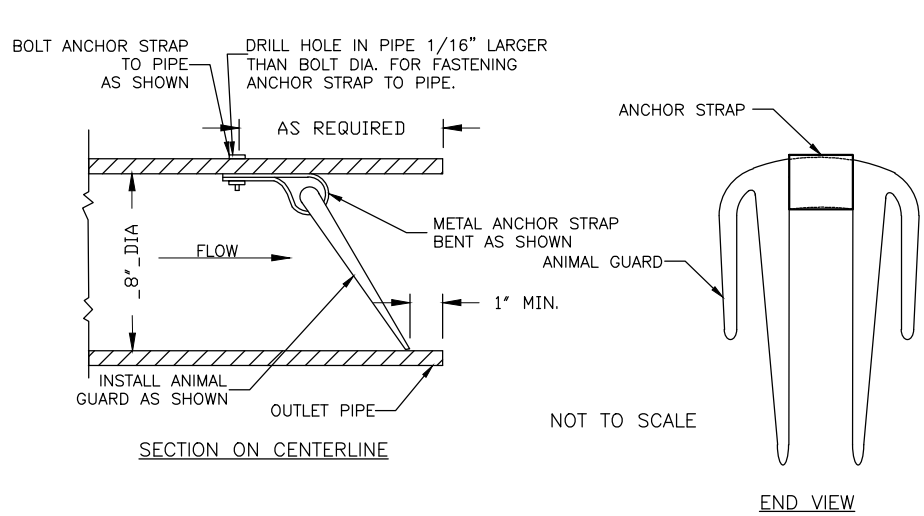
Drawing Name

WI-017

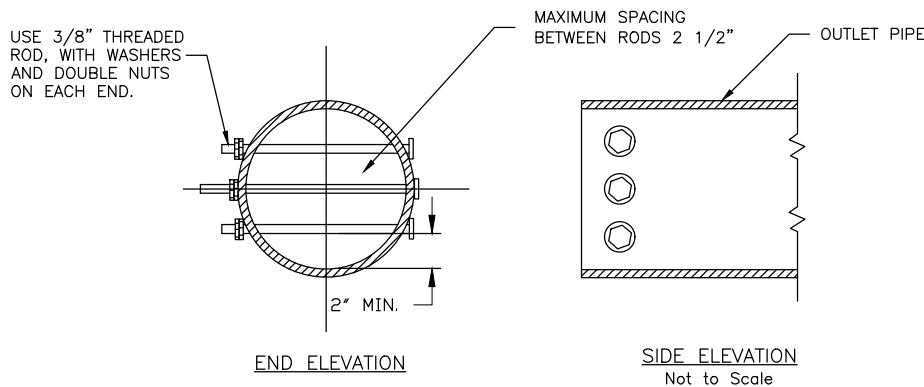
Date

06/2014

Sheet 3 of 9



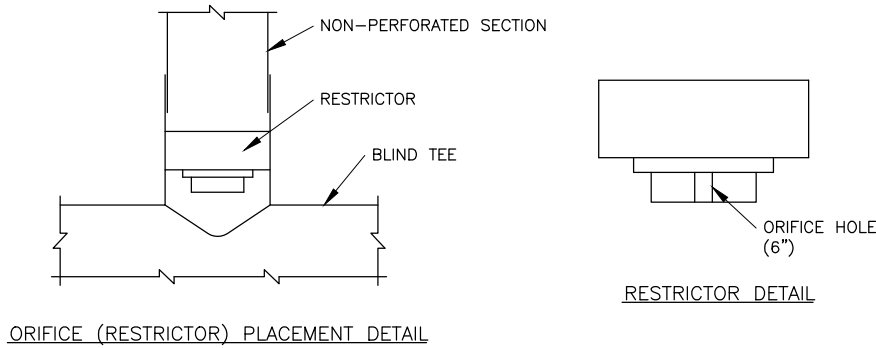
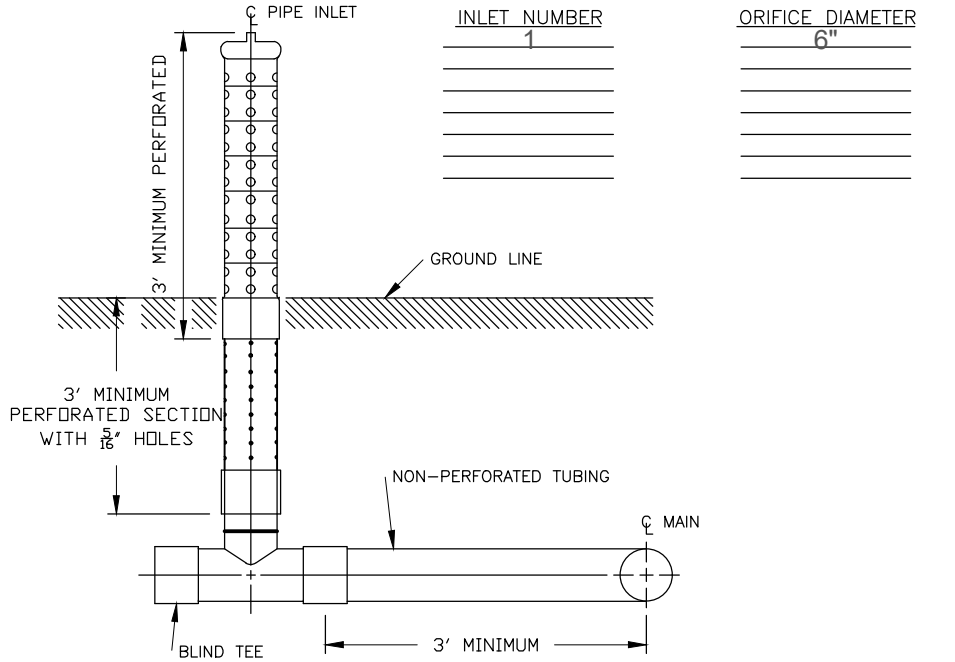
NOTE: ANIMAL GUARD SHALL BE FABRICATED OF MATERIAL THAT RESISTS CORROSION AND IS COMPATIBLE WITH THE OUTLET PIPE.



NOTE: OTHER OPTIONS FOR SECURING THE RODS IN PLACE INCLUDE COTTER PINS, OR SIMPLY BENDING THE RODS AT RIGHT ANGLE TO THE PIPE. SMOOTH ROD WOULD BE ACCEPTABLE IF THESE METHODS ARE USED.

ANIMAL GUARDS FOR
TILE OUTLETS

File Name
WI-602
Date
07/14

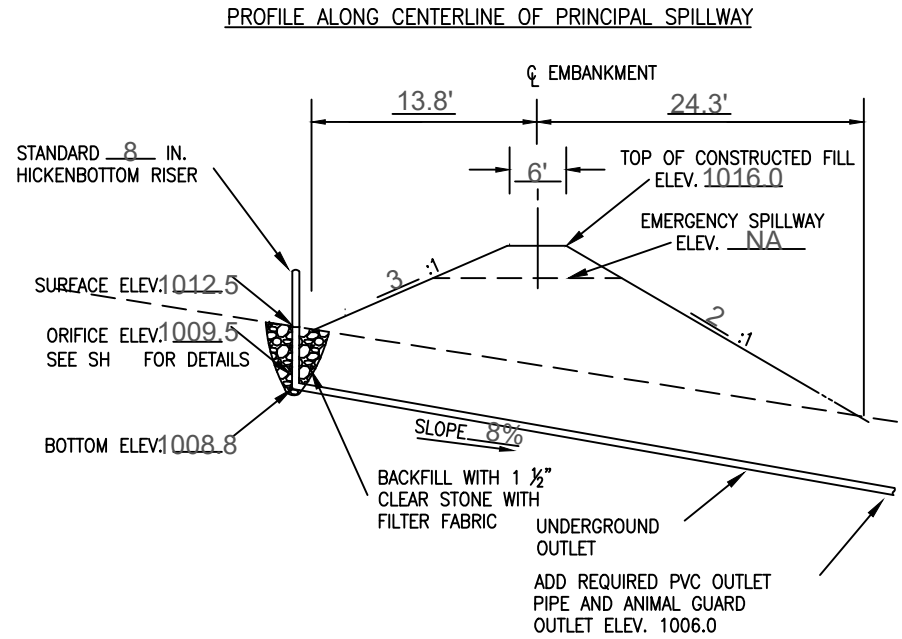


NOTES:

1. THE PERFORATED AND NON-PERFORATED PIPE INLET, BLIND TEE, AND RESTRICTOR SHALL BE SIMILAR OR EQUAL TO MATERIALS FROM HICKENBOTTOM TILE.
2. THE CONNECTION TO THE MAIN SHALL UTILIZE STANDARD MANUFACTURED FITTINGS.
3. THE PERFORATED SECTION OF THE INLET SHALL HAVE 6 ROWS OF HOLES SPACED AT 2 INCHES, CENTER TO CENTER, AND HAVE A 1 INCH DIAMETER.
4. INLET COMPONENT LENGTHS MAY BE SHORTENED OR LENGTHENED, TO OBTAIN THE REQUIRED HEIGHT OR DEPTH.

8-INCH DIA. POLYETHYLENE PIPE
SURFACE INLET FOR GRADE
STABILIZATION STRUCTURE

File Name
WI-409
Date
07/14



ESTIMATE OF MATERIALS		
ITEM	QUANTITY	
STANDARD 8 IN. HICKENBOTTOM RISER PIPE (2 SECTIONS) -----	1	NO.
8 IN. PE UNDERGROUND OUTLET PIPE -----	30	LIN. FT.
BLIND TEE FROM HICKENBOTTOM TO MATCH PE SIZE -----	1	NO.
IN. TO IN. REDUCER (IF NECESSARY) -----	NA	NO.
RESTRICTOR INSERT -----	1	NO.
8 IN. PVC OUTLET PIPE -----	10	LIN. FT.
ANIMAL GUARD -----	1	NO.
1 1/2" CLEAR STONE -----	2	CU. YDS.
FILTER FABRIC (CLASS II, NONWOVEN) -----	30	SQ. FT.

NOTES:

1. THE SURFACE INLET AND UNDERGROUND OUTLET SHOULD BE CONSTRUCTED PRIOR TO BUILDING THE EMBANKMENT.
2. BUILD THE WATER AND SEDIMENT CONTROL BASIN ACCORDING TO THE ATTACHED SPECIFICATIONS.

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. IT WAS PREPARED AT THE NRCS STATE OFFICE, 6515 WATTS ROAD, MADISON, WI. 53719-2726.

EAST STRUCTURE – GRADE STABILIZATION STRUCTURE SURFACE INLET

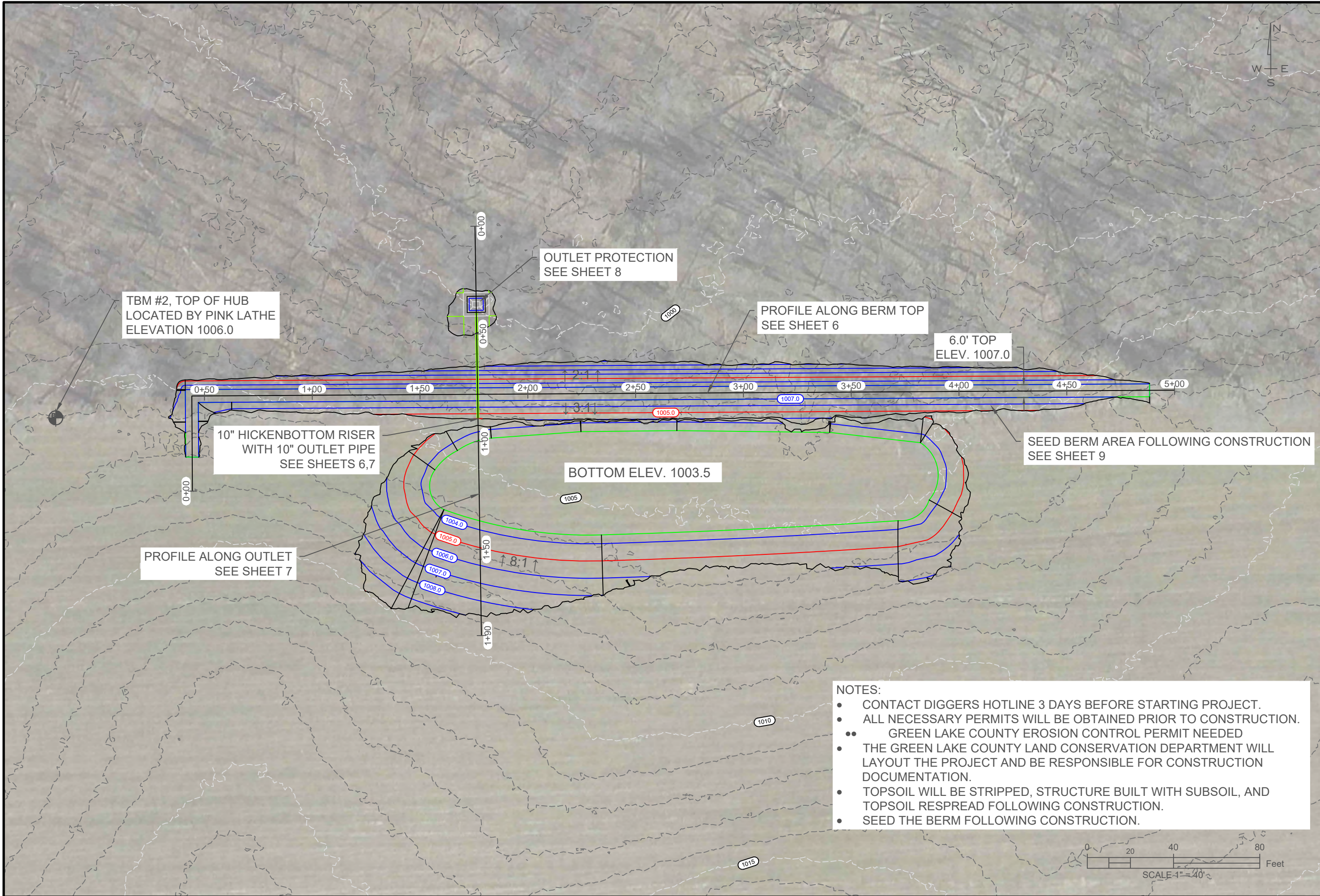
Date
8/20/25
Designed
T.MORRIS
Drawn
Checked
Approved

8 INCH DIA. PE SURFACE INLET &
ANIMAL GUARDS FOR TILE OUTLETS

OWNER: DUKELOW FARMS
COUNTY: GREEN LAKE

United States
Department of
Agriculture
USDA
Natural Resources
Conservation Service

Drawing Name
WI-409 & WI-602
Date
07/14 & 07/14



- NOTES:
- CONTACT DIGGERS HOTLINE 3 DAYS BEFORE STARTING PROJECT.
 - ALL NECESSARY PERMITS WILL BE OBTAINED PRIOR TO CONSTRUCTION.
 - GREEN LAKE COUNTY EROSION CONTROL PERMIT NEEDED
 - THE GREEN LAKE COUNTY LAND CONSERVATION DEPARTMENT WILL LAYOUT THE PROJECT AND BE RESPONSIBLE FOR CONSTRUCTION DOCUMENTATION.
 - TOPSOIL WILL BE STRIPPED, STRUCTURE BUILT WITH SUBSOIL, AND TOPSOIL RESPREAD FOLLOWING CONSTRUCTION.
 - SEED THE BERM FOLLOWING CONSTRUCTION.

Date	08/25/25
Designed	T. Morris
Drawn	
Checked	
Approved	

Plan View – CENTER

OWNER: DUKELOW FARMS INC.

COUNTY: GREEN LAKE

United States
Department of
Agriculture

USDA

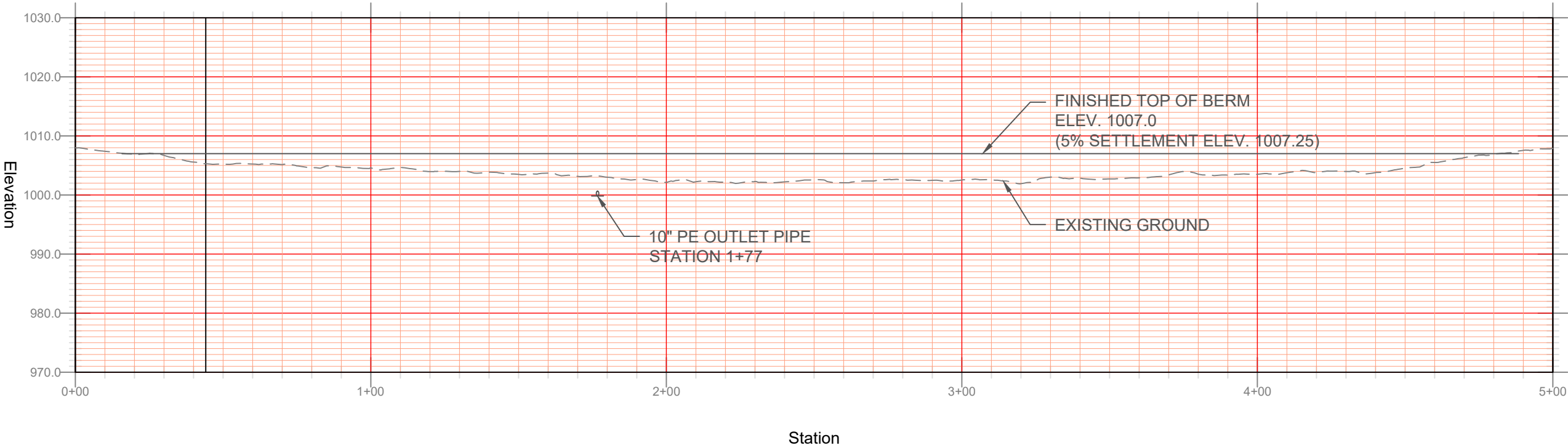
Natural Resources
Conservation Service

Drawing Name
WI-014

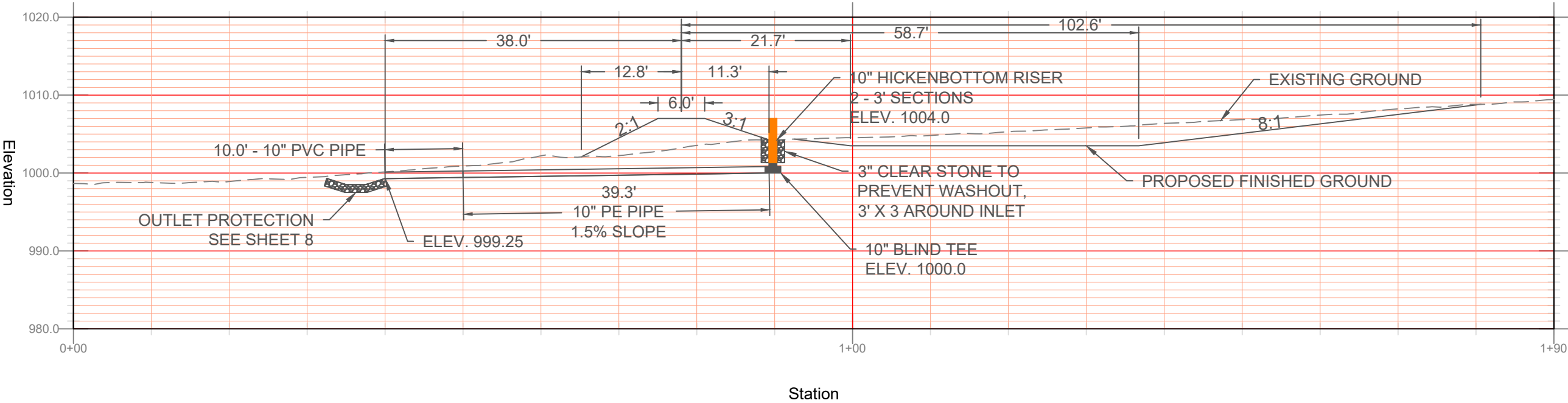
Date
06/2018

Sheet 5 of 9

Profile View of WASCOB CENTER



Profile View of CL OUTLET CENTER



Date	08/25/25
Designed	T. MORRIS
Drawn	
Checked	
Approved	

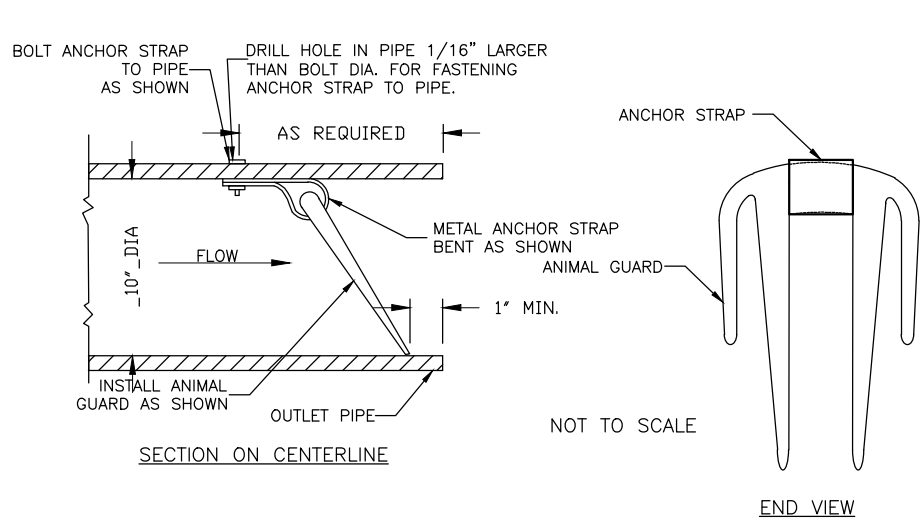
Profile - CENTER

OWNER: DUKELOW FARMS INC.

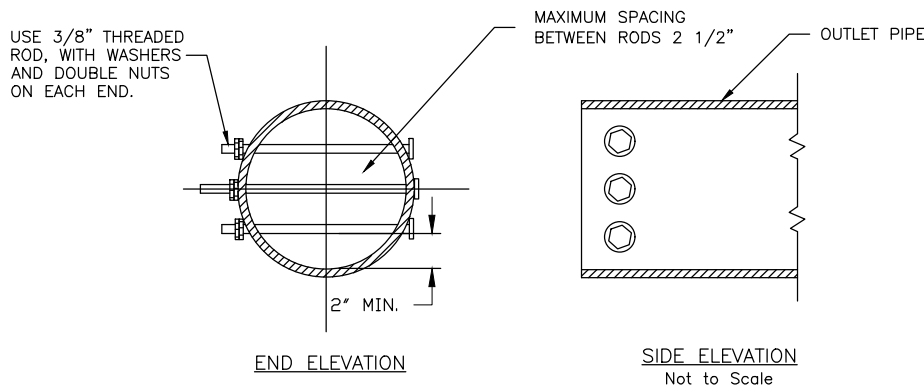
COUNTY: GREEN LAKE



Drawing Name	WI-017
Date	06/2014
Sheet 6	of 9



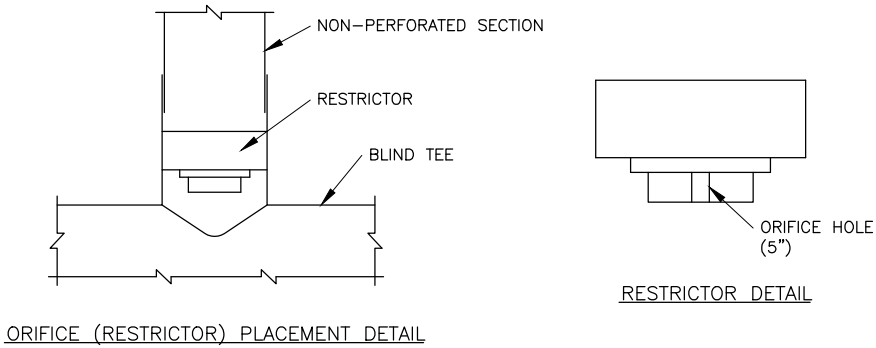
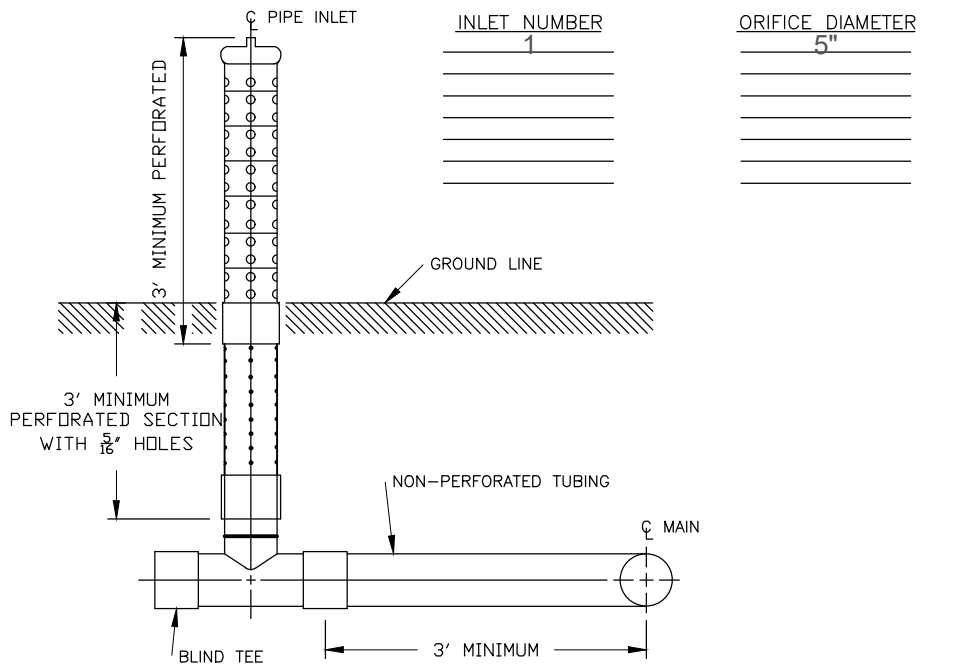
NOTE: ANIMAL GUARD SHALL BE FABRICATED OF MATERIAL THAT RESISTS CORROSION AND IS COMPATIBLE WITH THE OUTLET PIPE.



NOTE: OTHER OPTIONS FOR SECURING THE RODS IN PLACE INCLUDE COTTER PINS, OR SIMPLY BENDING THE RODS AT RIGHT ANGLE TO THE PIPE. SMOOTH ROD WOULD BE ACCEPTABLE IF THESE METHODS ARE USED.

ANIMAL GUARDS FOR TILE OUTLETS

File Name
WI-602
Date
07/14

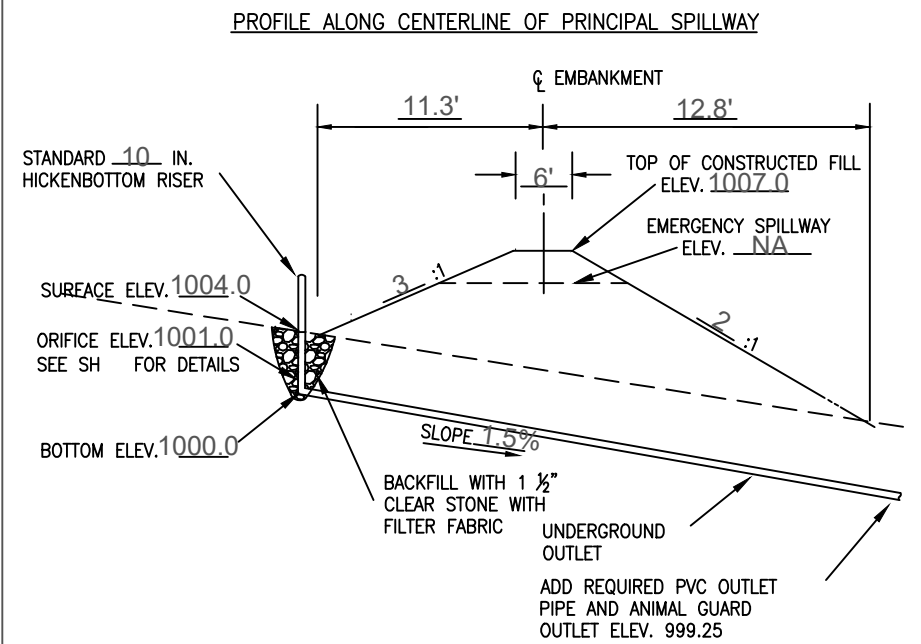


NOTES:

1. THE PERFORATED AND NON-PERFORATED PIPE INLET, BLIND TEE, AND RESTRICTOR SHALL BE SIMILAR OR EQUAL TO MATERIALS FROM HICKENBOTTOM TILE.
2. THE CONNECTION TO THE MAIN SHALL UTILIZE STANDARD MANUFACTURED FITTINGS.
3. THE PERFORATED SECTION OF THE INLET SHALL HAVE 6 ROWS OF HOLES SPACED AT 2 INCHES, CENTER TO CENTER, AND HAVE A 1 INCH DIAMETER.
4. INLET COMPONENT LENGTHS MAY BE SHORTENED OR LENGTHENED, TO OBTAIN THE REQUIRED HEIGHT OR DEPTH.

10-INCH DIA. POLYETHYLENE PIPE SURFACE INLET FOR GRADE STABILIZATION STRUCTURE

File Name
WI-409
Date
07/14



ESTIMATE OF MATERIALS		
ITEM	QUANTITY	
STANDARD 10 IN. HICKENBOTTOM RISER PIPE (2 SECTIONS)	1	NO.
10 IN. PE UNDERGROUND OUTLET PIPE	40	LIN. FT.
BLIND TEE FROM HICKENBOTTOM TO MATCH PE SIZE	1	NO.
IN. TO IN. REDUCER (IF NECESSARY)	NA	NO.
RESTRICTOR INSERT	1	NO.
10 IN. PVC OUTLET PIPE	10	LIN. FT.
ANIMAL GUARD	1	NO.
1 1/2" CLEAR STONE	2	CU. YDS.
FILTER FABRIC (CLASS II, NONWOVEN)	30	SQ. FT.

NOTES:

1. THE SURFACE INLET AND UNDERGROUND OUTLET SHOULD BE CONSTRUCTED PRIOR TO BUILDING THE EMBANKMENT.
2. BUILD THE WATER AND SEDIMENT CONTROL BASIN ACCORDING TO THE ATTACHED SPECIFICATIONS.

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE. IT WAS PREPARED AT THE NRCS STATE OFFICE, 6515 WATTS ROAD, MADISON, WI. 53719-2726.

CENTER STRUCTURE – GRADE STABILIZATION STRUCTURE SURFACE INLET

Date
8/20/25
Designed
T. MORRIS
Drawn
Checked
Approved

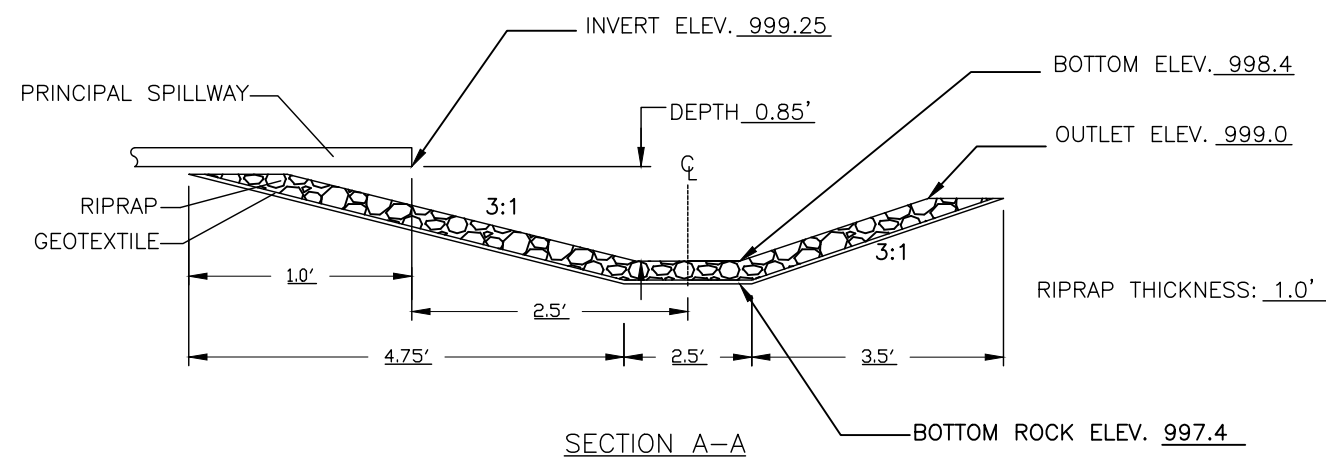
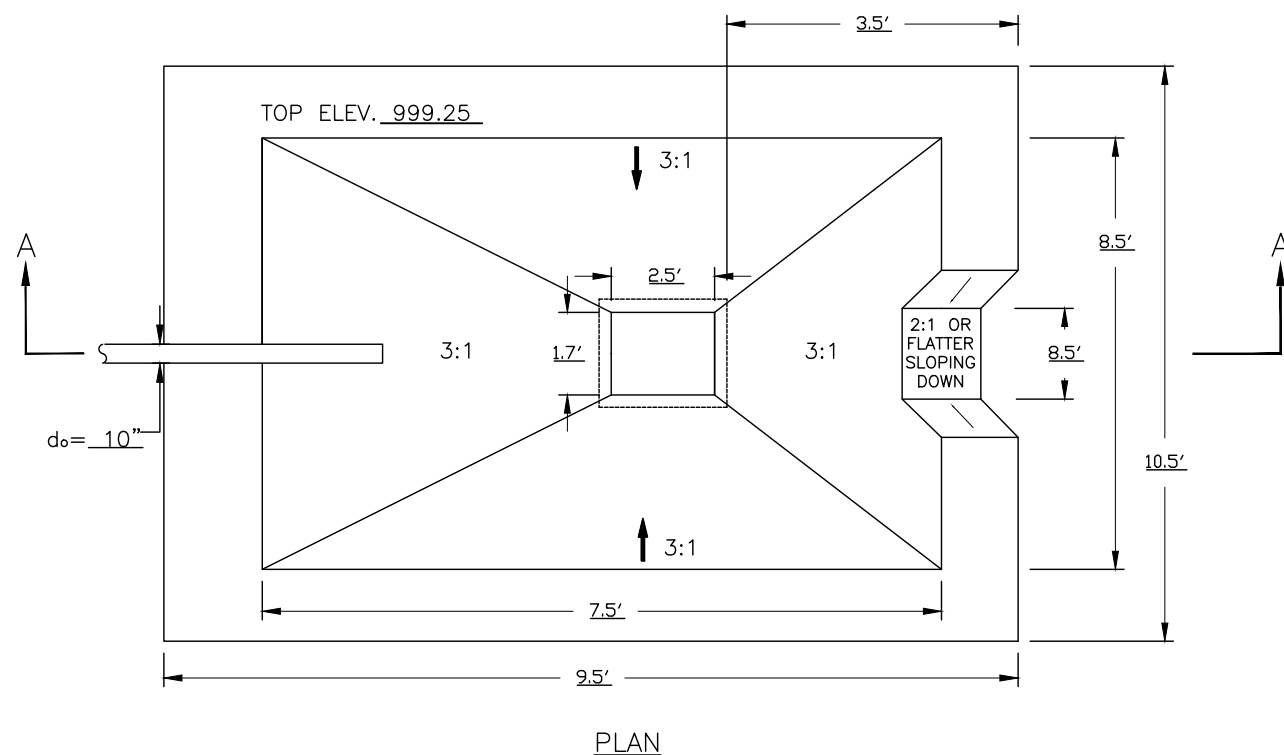
10 INCH DIA. PE SURFACE INLET & ANIMAL GUARDS FOR TILE OUTLETS

OWNER: DUKELOW FARMS
COUNTY: GREEN LAKE

United States
Department of
Agriculture
USDA
Natural Resources
Conservation Service

Drawing Name
WI-409 & WI-602
Date
07/14 & 07/14

Sheet 7 of 9



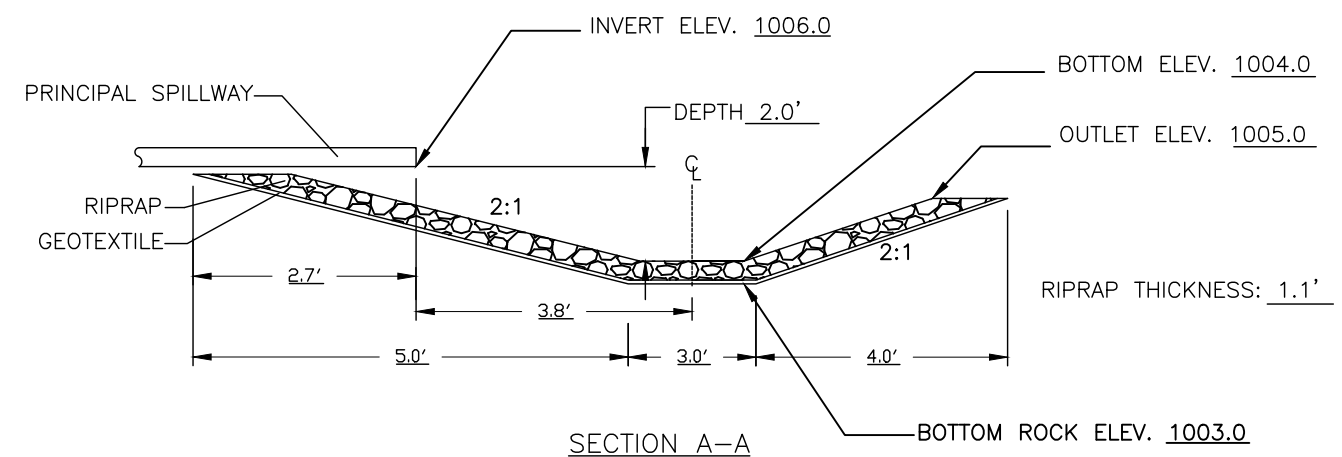
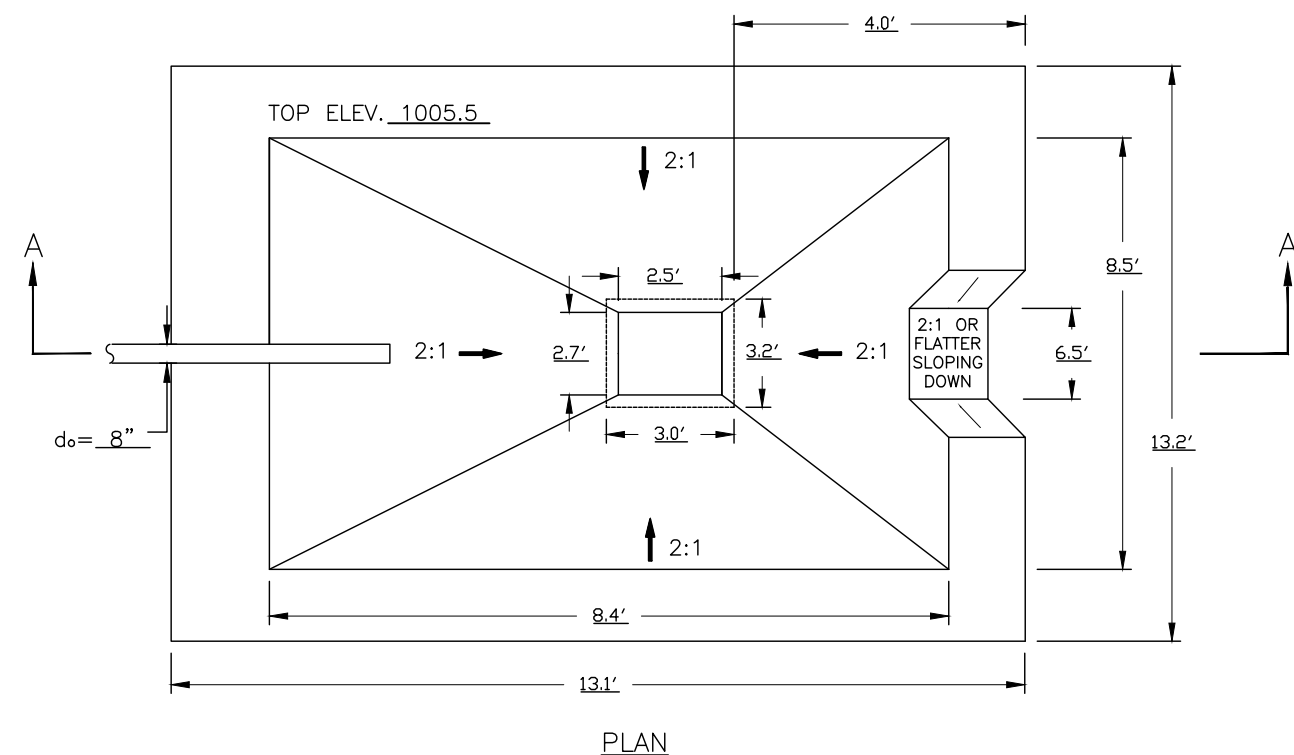
D₅₀= 4"

ROCK GRADATION	
PERCENT PASSING BY WEIGHT	SIZE IN INCHES
100	12
60-85	9
25-50	6
5-20	3
0-5	1

QUANTITIES	
EXCAVATION (W.C.S.* 2)	5 CU. YD.
ROCK RIPRAP (W.C.S. 9)	4 CU. YD.
GEOTEXTILE (W.C.S. 13)	100 SQ. FT.

*WIS. CONSTRUCTION SPECIFICATION

CENTER STRUCTURE OUTLET PROTECTION



D₅₀= 6"

ROCK GRADATION	
PERCENT PASSING BY WEIGHT	SIZE IN INCHES
100	12
60-85	9
25-50	6
5-20	3
0-5	1

QUANTITIES		
EXCAVATION (W.C.S.* 2)	7	CU. YD.
ROCK RIPRAP (W.C.S. 9)	6	CU. YD.
GEOTEXTILE (W.C.S. 13)	66	SQ. FT.

*WIS. CONSTRUCTION SPECIFICATION

EAST STRUCTURE OUTLET PROTECTION

Date	
Designed	T. MORRIS 09/11/25
Drawn	
Checked	
Approved	

Designed _____

3505

**RIPRAP-LINED PLUNGE POOL
FOR CANTILEVER OUTLET**
OWNER: DUKELOW FARMS

OWNERS:



United States
Department of
Agriculture

Natural Resources
Conservation Service

Drawing Name
WI-320

Date
07/2014

Sheet 8 of 9

SEEDING

Inoculate legumes with the specific inoculum for the species in accordance with the manufacturer's recommendations. When using a hydroseeder, five times the recommended rate of inoculant shall be added to the hydroseeder. Inoculant shall not be mixed with liquid fertilizer.

Seed may be broadcast or drilled as appropriate to the site.
Seed, fertilize, and lime as soon as possible after construction.
Seeding perpendicular to direction of flow is required to limit erosion.

Seed grasses and legumes no more than 1/4 inch deep.

Consider seeding at a lower rate and making 2 passes to ensure more uniform distribution.

TEMPORARY SEEDING OPTIONS

Select one of the following species for temporary cover if:

- 1) The required seeds or plant stock are not available or the normal permanent seeding period for the species has passed
- Forage Sorghum - 1/2 bushel per acre (May 15-July 15)
Sorghum - Sudangrass Hybrid - 1 bushel per acre (May 15-July 15)
Sudangrass - 1 bushel per acre (May 15-July 15)
Winter Wheat - 2 bushels per acre (Aug 1-Oct 1)
Winter Cereal Rye - 2 bushels per acre (Aug 1-Oct 15)
Oats - 2 bushels per acre (Apr 1-Sept 1)
Annual Ryegrass - 20 Pounds per acre (Apr 1-Sept 1)
- 2) Triazine herbicide carryover will not allow establishment of permanent cover immediately.
- Forage Sorghum - 1/2 Bushel per acre (May 15-July 15)
Sorghum - Sudangrass Hybrid - 1 Bushel per acre (May 15-July 15)
Sudangrass - 1 Bushel per acre (May 15-July 15)

Mulching not required

DORMANT SEEDING

Seed is broadcast and incorporated, no-tilled, or drilled into the seedbed .
Seedbed preparations and conditions are similar to conventional seeding.

MULCHING

Mulching not required

Lime Quality

Lime Quality

SEEDING DATES

CENTRAL

TIME PERIOD	DATES			TYPE OF SEEDING
Spring	April 15	through	June 1	Permanent
Summer	June 2	through	see WI-710 ss pg 2	Temporary *
Late Summer	August 1	through	August 21	Permanent
Fall	August 22	through	see WI-710 ss pg 2	Temporary *
Late Fall	November 1	through	Snow Cover	Dormant
Winter	Snow Cover	through	April 14	Not Allowed

MATERIALS

If no soil test is available, apply a minimum of 150 pounds of 20-10-10 fertilizer per acre. This is equivalent to 30 pounds nitrogen (N), 15 pounds phosphate (P205), and 15 pounds potash (K2O) per acre. Apply two tons / acre of 80-89 lime or equivalent. (See page 2 for equivalent)

* Seed a temporary cover crop of Winter Cereal Rye at 112 # /ac (2 bu/ac)
A permanent seeding shall be completed during the next acceptable time period following a temporary seeding.

MINIMUM PURE LIVE SEED (PLS) ¹ RATE PER ACRE AND TOTAL POUNDS OF SEED NEEDED

SEEDING MIX (DESIGN)	LOCATION ACRES	Dist. Area	SEEDING MIX (AS-BUILT)	LOCATION ACRES	
SPECIES	RATE	POUNDS	SPECIES	RATE	POUNDS
Kentucky Bluegrass	3.8	4.5			
Creeping Red Fescue	5.0	6.0			
Perennial Ryegrass	12.5	15.0			
** Oats	64.0	76.8			
PLS lbs = (Total % Germination / 100 * % Purity / 100) * Net Weight (lbs.)			ADDITIONAL SEED PERCENT: 25 %		
			Mulching Required No		
** Companion Crop					

Total % Germination may also be termed Total % Viable Seed on a tag. If a tag only shows % Germination, the user must include percentage of the seed that germinated during the lab test (% Germination) plus the percentage of hard and/or dormant seed. Hard seed and dormant seed are seeds that are still capable of germinating and producing a plant but did not germinate under the conditions of the test in the lab.

Additional native seeds may be required by permitting agencies. These addition are allowed.
Seed mixture shall meet all requirements of the WI weed laws.
Species identified as restricted or prohibited by law shall not be planted.
Certified seed shall be used, and the seeding rates will be based on pure live seed.
For dormant seedings, increase the seeds per square foot by 15%.

SEEDBED PREPARATION

Seedbed preparation shall immediately follow construction activities.
Prepare a fine, firm seedbed to a minimum depth of three inches. A seedbed is considered firm when a footprint penetrates less than 1/4 inch deep.

Date09/29/25

DesignedT. MORRIS

Drawn

Checked

Approved

INTRODUCED SPECIES SEEDING ESTABLISHMENT

OWNER: DUKELOW FARMS

COUNTY: GREEN LAKE

United States Department of Agriculture

USDA

Natural Resources Conservation Service

Drawing NameWI-710

Date12/2016

Sheet 9 of 9