

CONSTRUCTION PLAN

PRACTICE(S) STREAM CROSSING (578), FENCE (382)

LANDOWNER MATT CHERNEY

ADDRESS E3867 PEARSON RD., LA VALLE, WI 53941

LANDOWNER PHONE NO. (608) 963-0210 COUNTY SAUK

TOWNSHIP LA VALLE T 13N N, R 03 E/W, Sec. 34

FIELD OFFICE SAUK CO. LRE DEPT. TELEPHONE NO. (608) 355-3245

DIGGERS HOTLINE

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Toll Free
 1-800-242-8511

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Not to
 Scale

LOCATION MAP

NOTICE TO LANDOWNERS AND EXCAVATORS

Any representation made by the USDA, Natural Resources Conservation Service, or the SAUK 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: Matt Chorney Date: 2-19-20

Designed by: GUS JOHNSON Date: 2/14/2020

Checked by: Serge Koenig Date: 2-14-2020

Approved by: [Signature] Date: 2-14-2020

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 EJAA - Class I (xing), ESJAA - Class I (fence)

CONSTRUCTION NOTES

1. ALL UNDERGROUND HAZARDS AND UTILITIES MUST BE INVESTIGATED PRIOR TO CONSTRUCTION. NOTIFICATION OF EFFECTED UTILITY COMPANIES IS THE RESPONSIBILITY OF THE CONTRACTOR. CONTACT DIGGERS HOTLINE AT LEAST THREE DAYS PRIOR TO START OF CONSTRUCTION.
2. ALL PERMITS (FEDERAL, STATE, LOCAL, ETC) ARE THE RESPONSIBILITY OF THE LANDOWNER. IT IS THE LANDOWNER'S RESPONSIBILITY TO COMPLY WITH ALL REQUIREMENTS OF PERMITS.
3. A PRE-CONSTRUCTION MEETING SHALL BE SCHEDULED WITH SAUK CO. PERSONNEL, THE CONTRACTOR, AND THE LANDOWNER PRIOR TO CONSTRUCTION START-UP.
4. THE CONTRACTOR AND/OR LANDOWNER SHALL NOTIFY SAUK CO. AT LEAST 3 DAYS PRIOR TO START-UP OF CONSTRUCTION.
5. ALL WORK TO BE PERFORMED IN ACCORDANCE WITH WISCONSIN NRCS CONSTRUCTION SPECIFICATIONS (ATTACHED TO THIS PLAN).
6. ROCK RIP RAP REQUIRES CURRENT MATERIAL TEST DATA ACCORDING TO WISCONSIN CONSTRUCTION SPECIFICATION 9. THE CONTRACTOR SHALL PROVIDE TEST DATA OR QUARRY INFORMATION PRIOR TO ROCK DELIVERY TO THE TECHNICIAN FOR ACCEPTANCE.
7. ROCK GRADATION MUST BE APPROVED BY THE TECHNICIAN PRIOR TO ROCK PLACEMENT.
8. STRIP AND STOCKPILE TOPSOIL FOR RESPREADING ON SEEDING AREAS OUTSIDE OF ANY POTENTIAL WETLAND AREAS OR FLOODPLAIN AREAS.
9. STREAM CROSSING SHAPING WILL CONSIST OF REMOVING EXISTING CEMENT CROSSING AND CULVERT AND GRADING STREAM APPROACHES BACK TO A 6:1 SLOPE OR FLATTER IDENTIFIED BY THE TECHNICIAN PRIOR TO EXCAVATION.
10. ROCK WILL BE PLACED WITH EQUIPMENT, NOT DUMPED OVER THE BANK.
11. SEED, FERTILIZE, LIME AND MULCH THE DISTURBED BANK AREA ADJACENT TO THE CROSSING AS SOON AS POSSIBLE AFTER CONSTRUCTION
12. INSTALL FENCE ACCORDING TO LAYOUT MAP IN THIS PLAN.



United States
Department of
Agriculture

Natural Resources
Conservation Service

CONSTRUCTION NOTES

CLIENT: MATT CHERNEY
COUNTY: SAUK CO. LRE DEPT.

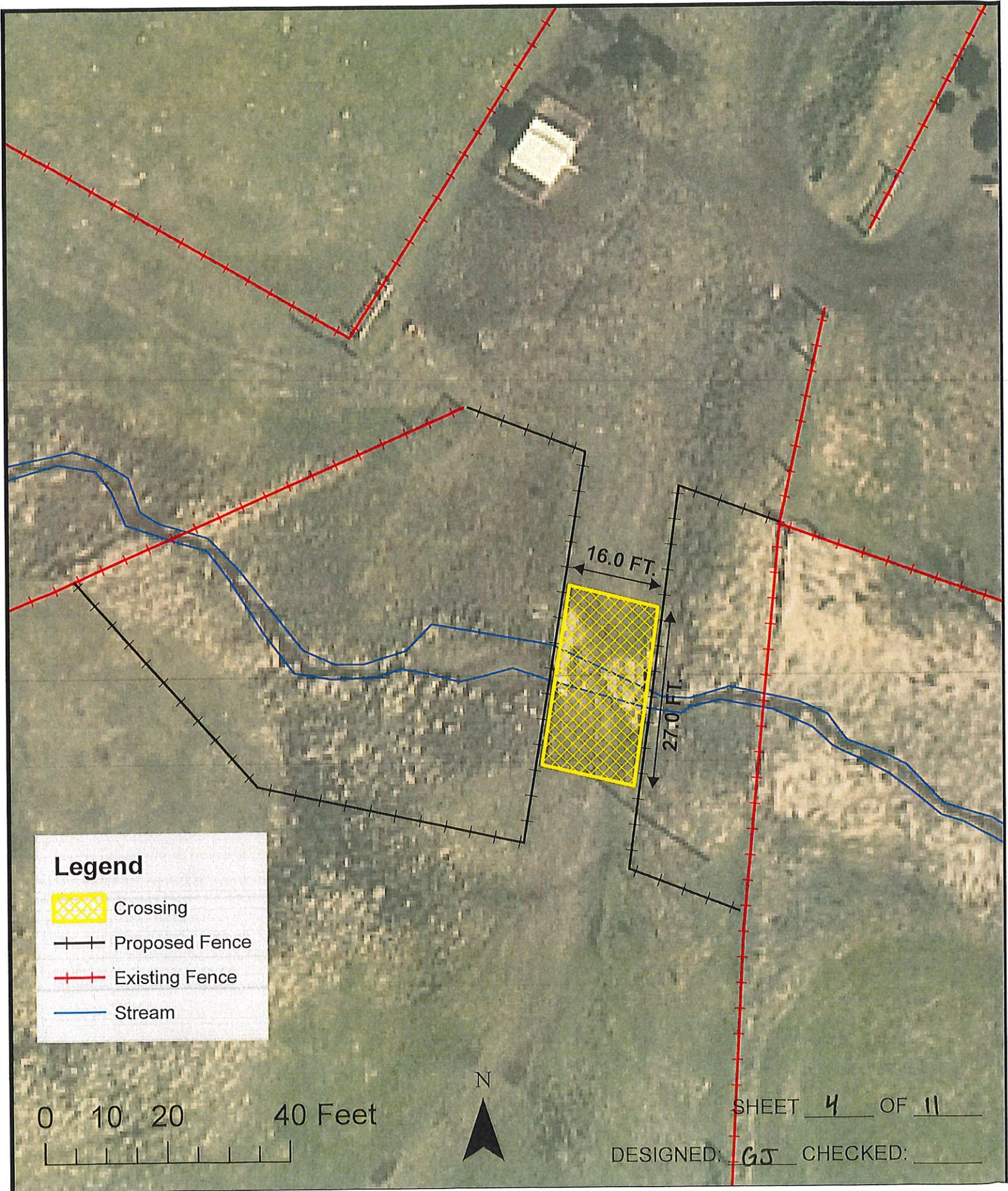
Designed	<u>GJ</u>	Date	<u>2/14/2020</u>
Drawn	_____	Date	_____
Checked	_____	Date	_____
Approved	_____	Date	_____

File Name

Date

Sheet **3** of **11**

MATT CHERNEY PLAN MAP



Legend

-  Crossing
-  Proposed Fence
-  Existing Fence
-  Stream

0 10 20 40 Feet

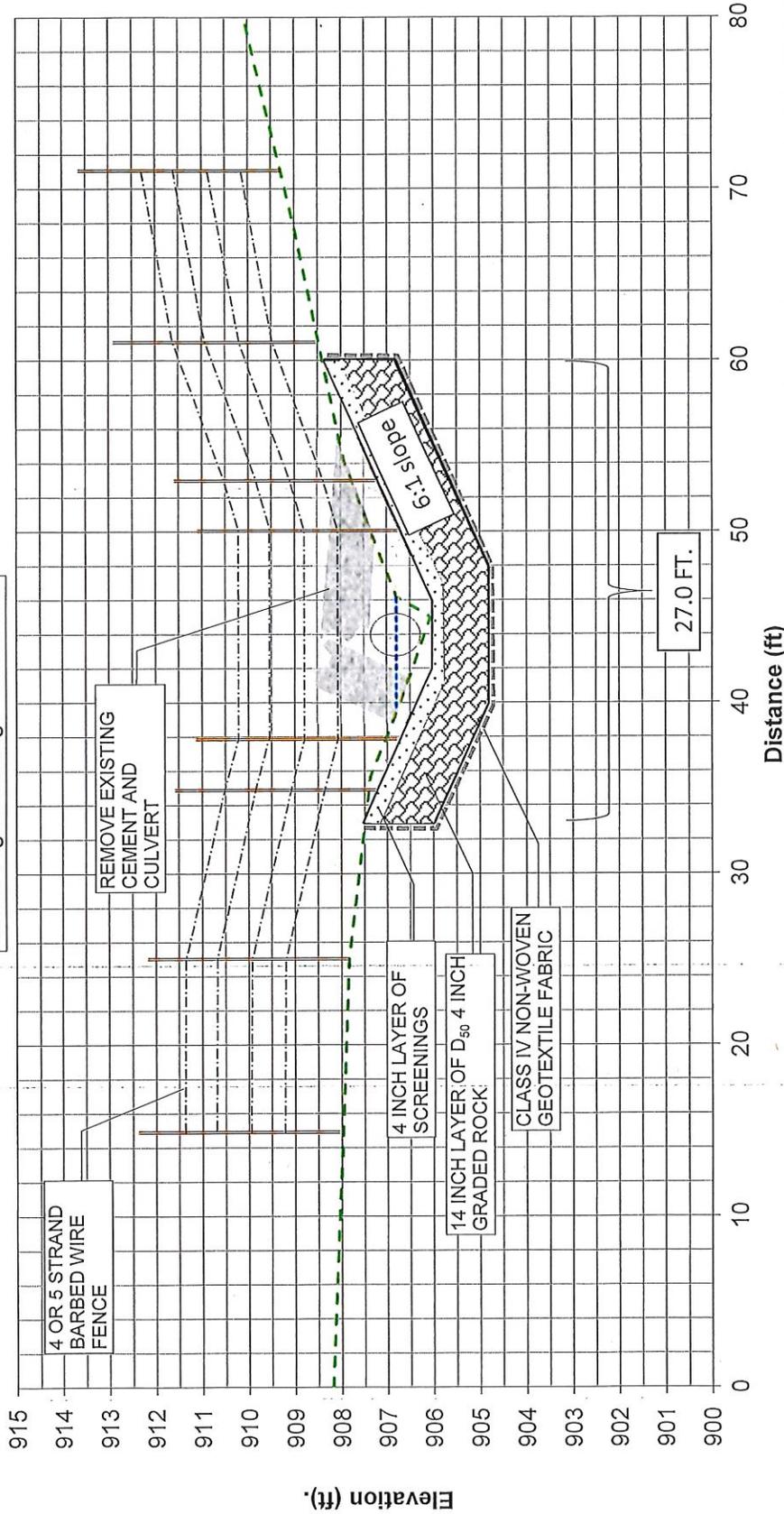


SHEET 4 OF 11

DESIGNED: GJ CHECKED: _____

X-sec @ X-ING

Left to Right Looking Downstream

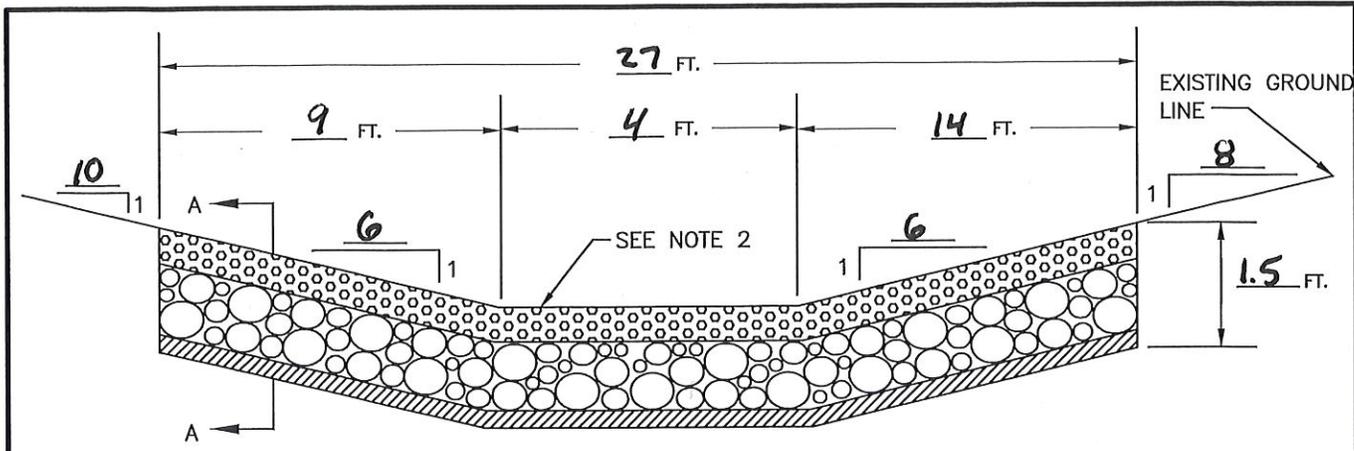


- Existing Ground
- Top of Water
- Proposed Crossing

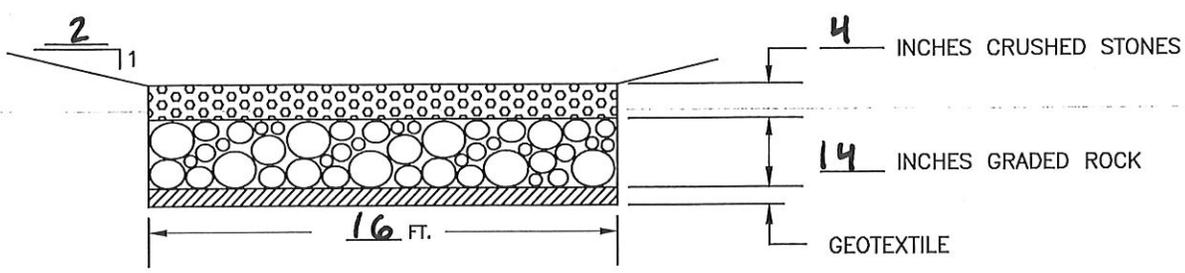
Construction Notes:

- REMOVE EXISTING CEMENT DEBRIS AND CULVERT
- APPROACHES GRADED TO 6:1 OR FLATTER
- 4.0 FT. FLAT BOTTOM IN STREAM AT OR BELOW EXISTING STREAMBED ELEVATION

OWNER: **MAT CHERNEY**
 COUNTY: **SANK**
 Designed: **GJ** Checked: _____
 SHEET **5** OF **11**



PROFILE ALONG CENTERLINE OF CROSSING



SECTION A-A

QUANTITY ESTIMATE*	
EXCAVATION -----	~5.0 CU. YD.
GEOTEXTILE WOVEN/NON WOVEN CLASS -----	58 SQ. YDS
GRADED ROCK -----	18.7 CU. YD.
GRADED ROCK: 100% PASSING THE BASE COURSE THICKNESS DIMENSION WITH A MAX. OF 10% PASSING THE 3/4" SIEVE. ALL SIZES BETWEEN THE LIMITS ARE TO BE REPRESENTED.	
CRUSHED STONE -----	6.3 CU. YD.
CRUSHED STONES CONSISTS OF 100% PASSING 3/4" SIEVE AND 10% MAXIMUM PASSING THE #200 SIEVE.	
SEEDING -----	0.1 ACRES

SEE REVERSE SIDE FOR ADDITIONAL INFORMATION

*ESTIMATED TO THE NEAT LINES AND GRADES

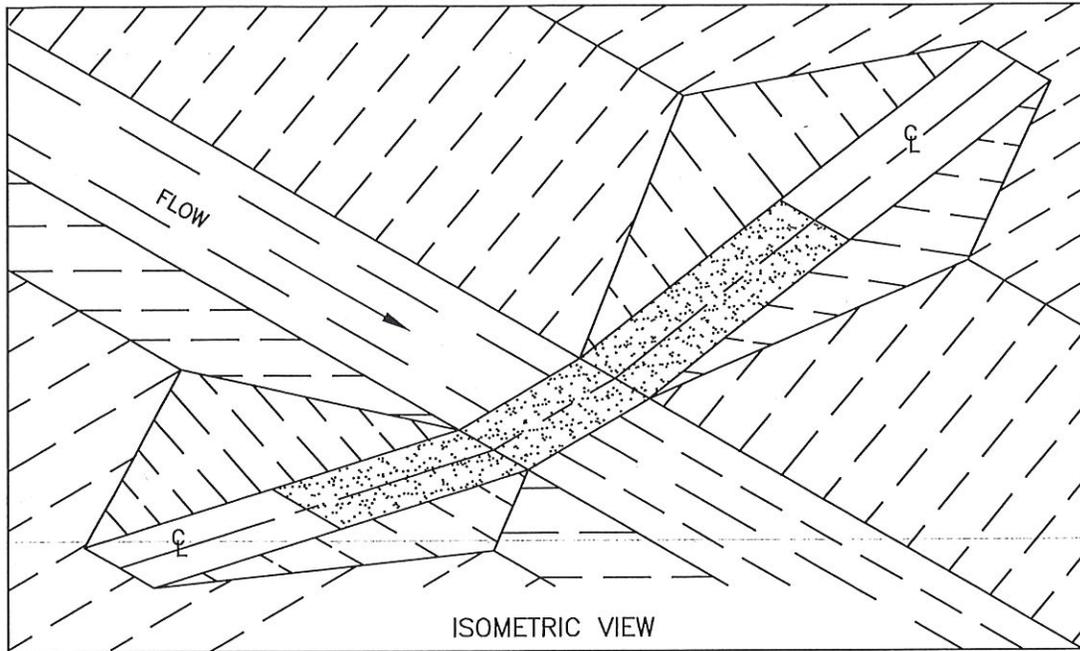
NOTES:

1. COMPACT SURFACING MATERIAL BY EQUIPMENT TRAVEL.
2. CROSSINGS SHALL HAVE THE TOP-MOST SURFACE LAYER AT THE SAME LEVEL AS OR LOWER THAN THE NATURAL STREAMBED IMMEDIATELY UPSTREAM AND DOWNSTREAM FROM THE CROSSING

SITE OR STATION X-116

THIS STANDARDIZED DESIGN MUST BE ADAPTED TO THE SPECIFIC SITE.

<p>United States Department of Agriculture Natural Resources Conservation Service</p>	<p>ROCK CROSSING (GEOTEXTILE BASE)</p> <p>CLIENT: <u>MATT CHERNEY</u> COUNTY: <u>SAUK CO. LRE DEPT.</u></p>	<p>Date <u>2/14/20</u></p>	<p>File Name <u>WI-405D</u></p>
		<p>Designed <u>GJ</u></p>	<p>Date <u>07/14</u></p>
		<p>Drawn _____</p>	<p>Checked _____</p>
		<p>Approved _____</p>	<p>Sheet <u>6</u> of <u>11</u></p>



GRADED ROCK MATERIAL GRADATION

<u>PERCENT PASSING</u> <u>BY WEIGHT</u>	<u>SIZE (INCHES)</u>
100	<u>8</u>
60-85	<u>6</u>
25-50	<u>4</u>
5-20	<u>2</u>
0-5	<u>1</u>

SEEDING DATES

CENTRAL

TIME PERIOD	DATES			TYPE OF SEEDING
Spring	April 15	through	June 1	Permanent
Summer	June 2	through	see WI-710ss pg 2	Temporary *
Late Summer	August 1	through	August 21	Permanent
Fall	August 22	through	see WI-710ss 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 (P2O5), 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 **Oats** at 64 #/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)	17	LOCATION: ACRES:	XING 0.10	SEEDING MIX (AS-BUILT)	LOCATION ACRES	
SPECIES	RATE	POUNDS		SPECIES	RATE	POUNDS
Redtop	1.3	0.1				
Timothy	3.8	0.4				
Red Clover	6.3	0.6				
**	#N/A	#N/A				

¹ PLS lbs. = (total % Germination / 100 * % Purity / 100) * Net Weight (lbs.)

ADDITIONAL SEED PERCENT: 25 %
Mulching Required Yes

** 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.

 United States Department of Agriculture Natural Resources Conservation Service	INTRODUCED SPECIES SEEDING ESTABLISHMENT		Designed	GJ	Date	File Name
	COOPERATOR	Matt Cherney	Drawn			WI-710SS
	COUNTY	SAUK	Checked			pg 1 of 2
			Approved			1-2019
						Sheet 8 of 11

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)

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 shall be done immediately after seedbed preparation and seeding.
Mulch shall be applied immediately after final grading for areas seeded at a later date.
Mulch material shall be relatively free of disease, pesticides, chemicals, noxious weed seeds, and other pests and pathogens.

Spread straw and hay mulch uniformly and at the rate of 1.5-2.0 tons per acre (60-70 bales). This application results in a layer of 6 to 7 stems, 1 to 2 inches thick, and provides a minimum 70% ground cover. Some soil surface can be seen after the application. Crimping (disking), wood cellulose fiber, tackifiers, netting, pinning, or other acceptable methods of anchoring will be used if needed to hold the mulch in place.

If other mulch materials are used, the rate of application shall meet the manufacturer's recommendations.

Two (2) tons/ac of 80-89 lime or equivalent from UW-EXT A3671

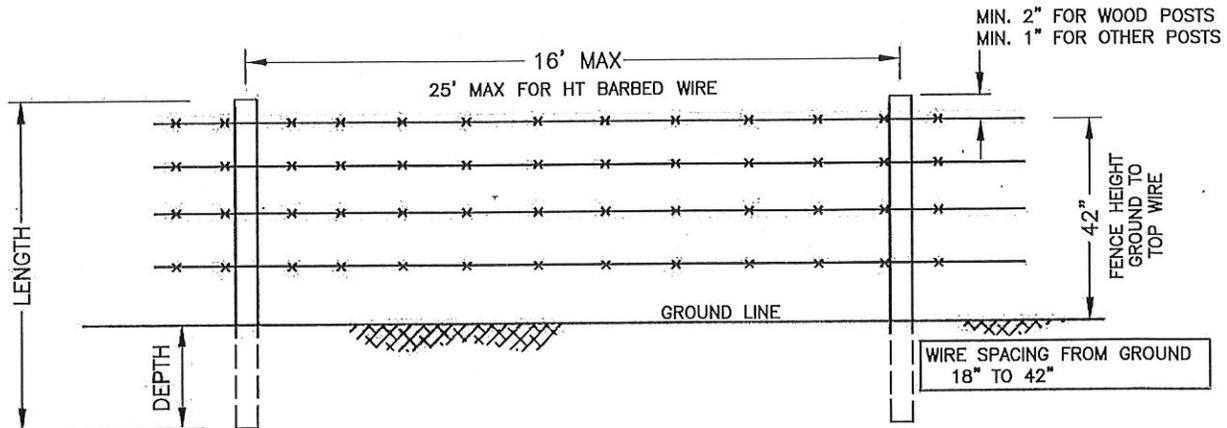
Lime Quality	Tons / AC.	Lime Quality	Tons / AC.
40-49	3.9	70-79	2.3
50-59	3.2	90-99	1.9
60-69	2.7	100+	1.6

 <p>United States Department of Agriculture Natural Resources Conservation Service</p>	INTRODUCED SPECIES SEEDING ESTABLISHMENT		Designed	GJ	Date	File Name
	COOPERATOR	Matt Cherney		Drawn		WI-710SS Pg 2 of 2 1-2019
		COUNTY	SAUK		Checked	
			Approved		Sheet 9 of 11	

STANDARD BARBED WIRE FENCE

CATTLE, EXTERIOR

4 OR 5 WIRES
CAN BE USED



LINE POSTS

WOOD:

DIA.= 4" MIN
DEPTH= 2' MIN
MIN. LENGTH= FENCE HEIGHT + POST DEPTH + 2"

ALL WOOD SPECIES EXCEPT RED CEDAR, WHITE CEDAR, TAMARACK, OSAGE ORANGE, BLACK LOCUST, AND WHITE OAK SHALL BE TREATED BY A METHOD LISTED IN WI CONSTRUCTION SPEC. #10-FENCES.

STEEL:

STANDARD "T" POST MIN 1.25 LBS/FT, 1-3/8" X 1-3/8" X 1/8"
DEPTH= 1.5' MIN
MIN. LENGTH= FENCE HEIGHT + POST DEPTH + 1"

ALL STEEL POSTS WILL HAVE AN ANCHOR PLATE AND BE STUDDED

ALL STEEL POSTS WILL BE PAINTED WITH A WEATHER RESISTANT PAINT FOR STEEL, ENAMELED AND BAKED, OR HOT DIP GALVANIZED

ALL STEEL POSTS WILL BE ROLLED FROM HIGH CARBON STEEL

WIRE

2 TWISTED STRANDS OF 12.5-GAUGE OR HEAVIER GALVANIZED STEEL WIRE OR 15.5-GAUGE OR HEAVIER HIGH TENSILE GALVANIZED WIRE WITH A 20 YEAR SUPPLIER'S WARRANTY OR SUPPLIER DOCUMENTATION THAT THE WIRE WILL REMAIN DURABLE FOR THE PRACTICE LIFESPAN. ALL WIRE SHALL MEET ASTM A121 WITH GALVANIZING MEETING ASTM 641

BARBS MIN 2 POINT ON 5" CENTERS

FASTENERS

ALL WIRES SHALL BE ATTACHED TO EACH LINE POST

STAPLES SHALL BE 9-GAUGE, GALVANIZED STEEL OR HEAVIER.

RECOMMENDED LENGTH: 1.75" MIN. FOR SOFTWOODS
1" MIN. FOR HARDWOODS

MANUFACTURER'S CLIPS OR 14-GAUGE WIRE MAY BE USED TO FASTEN WIRES TO NON-WOOD POSTS

USE BARBED STAPLES FOR WOOD POSTS

NOTES

BARBED WIRE SHALL NOT BE ELECTRIFIED OR INSULATED FOR ELECTRIFICATION

BRACES ARE REQUIRED AT ALL CORNERS, GATES, PULL AND END ASSEMBLIES. SEE BRACE DETAILS.

H-BRACING IS REQUIRED AT ALL PULL ASSEMBLIES AND MUST BE INSTALLED EVERY 660' MAX. SEE BRACE DETAILS

GROUNDING

IT IS RECOMMENDED THAT FENCES WITHOUT STEEL POSTS BE GROUNDED FOR LIGHTNING PROTECTION AT LEAST EVERY QUARTER MILE. ALL LINE WIRES MUST BE GROUNDED. USE 12.5 GAUGE WIRE FOR LEAD-OUT WIRE.

-GROUND RODS
MIN 4 FEET INTO GROUND
0.5" MIN DIAMETER, GALVANIZED STEEL

REFER TO WI CONSTRUCTION SPEC #10-FENCES FOR MORE SPECIFIC INFORMATION

Fence Length = 280 FT.



United States
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STANDARD BARBED WIRE FENCE

CATTLE, EXTERIOR

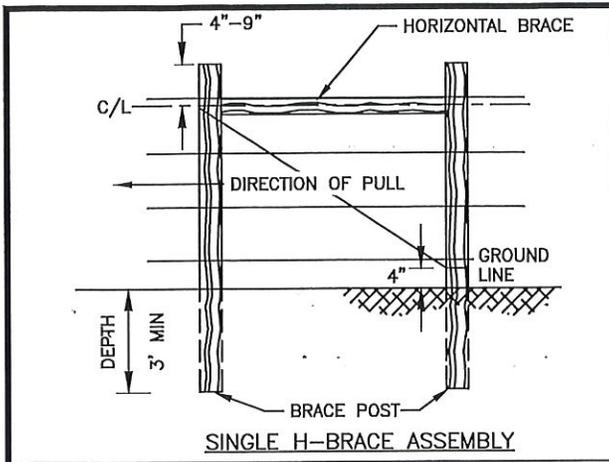
CLIENT: MATT CHERNEY
COUNTY: SAUK CO. LRE DEPT.

Designed GJ Date 2/14/2020
Drawn _____
Checked _____
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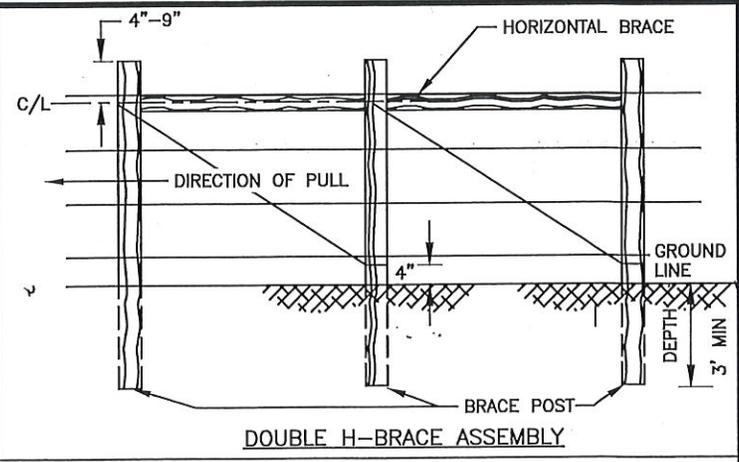
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701-1A

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7/19

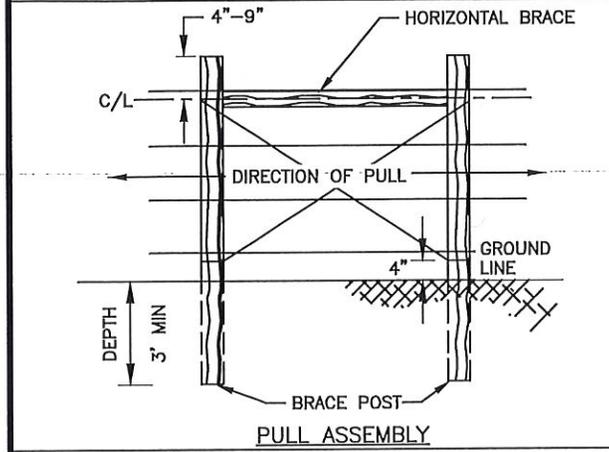
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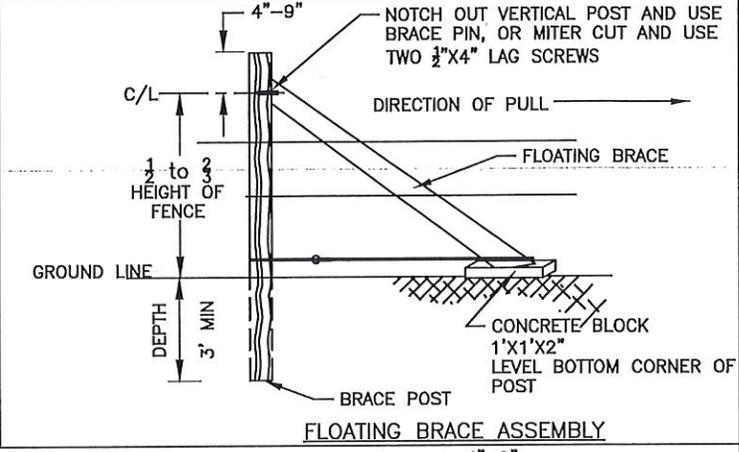
SINGLE H-BRACE ASSEMBLY



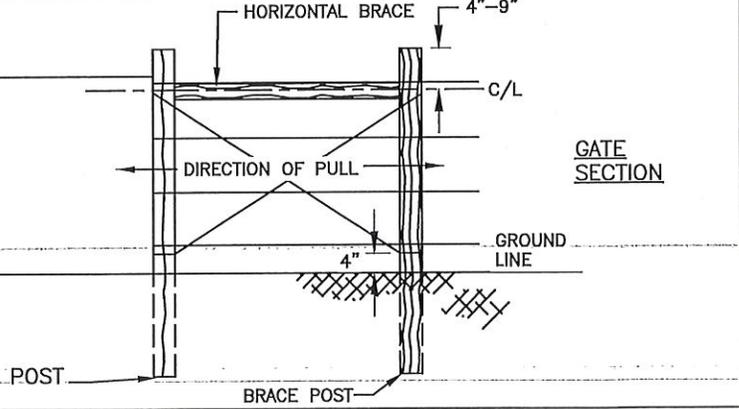
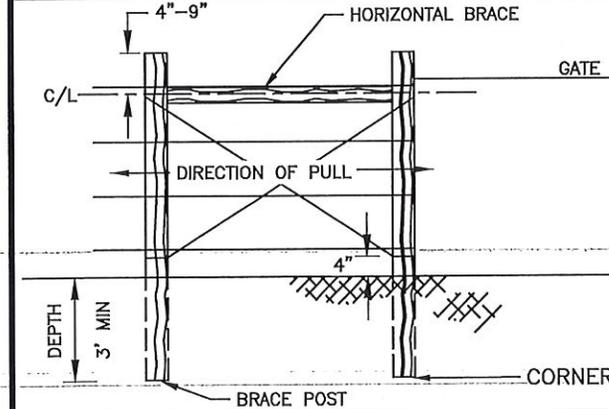
DOUBLE H-BRACE ASSEMBLY



PULL ASSEMBLY



FLOATING BRACE ASSEMBLY



GATE SECTION

POSTS

WOOD:
 DIA. = 5" MIN
 LENGTH = 8' MIN**
 DEPTH = 3' MIN

**7' MIN. LENGTH CAN BE USED FOR DOUBLE H-BRACE. SHTWWF POST LENGTH IS DEPENDENT ON THE HEIGHT OF FENCE.
 ALL WOOD SPECIES EXCEPT RED CEDAR, WHITE CEDAR, TAMARACK, OSAGE ORANGE, BLACK LOCUST, AND WHITE OAK SHALL BE TREATED BY A METHOD LISTED IN WI CONSTRUCTION SPEC. #10-FENCES.

TENSION WIRE

2 COMPLETE LOOPS OF 9-GUAGE SMOOTH WIRE OR 12-GUAGE DOUBLE STRAND WIRE, OR A SINGLE LOOP OF 12.5 GAUGE HIGH TENSILE SMOOTH WIRE

HORIZONTAL OR DIAGONAL BRACE

WOOD:
 DIA. = 4" MIN, 3" MIN FOR HIGH TENSILE WIRE
 LENGTH = 7' HORIZONTAL, 8' DIAGONAL

STEEL:
 HORIZONTAL BRACES MUST MEET ASTM A702 AND ASTM A499 AND HAVE A MINIMUM COATING THICKNESS OF 1 MIL.

NOTES:

USE WOOD POSTS ONLY FOR VERTICAL POSTS.
 H-BRACE OR FLOATING DIAGONAL BRACE IS REQUIRED ON ALL CORNERS, ENDS AND GATES. AN H-BRACE IS REQUIRED AT ALL PULL ASSEMBLIES AND MUST BE INSTALLED EVERY 660', EXCEPT FOR HIGH TENSILE WIRE FENCE.
 USE A SINGLE H-BRACE OR FLOATING BRACE WHEN THE POSTS CAN BE SET OR DRIVEN INTO THE GROUND 3' OR MORE. OTHERWISE, USE A DOUBLE H-BRACE.
 CORNER OR BEND ASSEMBLY SHALL BE USED WHENEVER THE HORIZONTAL ALIGNMENT CHANGES MORE THAN 15 DEG. AND OR WHERE VERTICAL ALIGNMENT CHANGE IS MORE THAN 15 DEG. (30 DEG. CHANGE FOR HIGH TENSILE SMOOTH FENCE).
 REFER TO WI CONSTRUCTION SPEC #10-FENCES FOR MORE SPECIFIC INFORMATION

United States Department of Agriculture
 Natural Resources Conservation Service

BRACES

CLIENT: MATT CHERNEY
 COUNTY: SAUK CO. LRE DEPT.

Designed GJ Date 2/14/2020
 Drawn _____
 Checked _____
 Approved _____

Drawing Name 701-11A
 Date 7/19
 Sheet 11 of 11

