



Le Sueur County, MN

Thursday, October 13, 2016

Regular session

Item 8

SWCD-Rutt

Staff Contact: Kathy Brockway or Michelle Mettler

STAFF REPORT

GENERAL INFORMATION

APPLICANT: Le Sueur County Soil Water Conservation District (SWCD) **OWNER:** Steven Rutt

911 ADDRESS: 19347 and 19355 Lake Volney Circle, Le Center MN 56057

PROJECT DESCRIPTION: Grading, excavating, and filling of approximately 1355 cubic yards of material for stormwater basin management and erosion control project in a Recreational Residential "RR" District, on a Recreational Development "RD lake, Lake Volney.

ZONING DISTRICT PURPOSE:

A District, adjacent to Recreational Development (RD) and Natural Environment (NE) lakes, to preserve areas which have natural characteristics suitable for both passive and active recreational usage. Also, it is the intent of this District to manage areas suitable for residential development of varying types, including permanent and seasonal housing. Some non-residential uses with minimal impacts on residential uses may be allowed.

ZONING ORDINANCE SECTIONS: 13.2,18

GOALS AND POLICIES:

Goal 2: Le Sueur County should adopt and enforce land use goals and policies that conserve and restore its natural resources, bring protections to the ecological systems of the natural environment, and prevent the premature development of natural resource areas.

Policy: Utilize shorelands on Recreational Development Lakes (RD) for housing, but with a focus on development design that protects the resource.

Goal 3: Improve water quality in Le Sueur County.

Policy: The County will undertake actions to help protect groundwater as well as surface water features.

SITE INFORMATION

LOCATION: Lots 9 & 10, Lake Volney Estates, Section 36, Lexington Township.

ZONING: Recreational Residential "RR"

GENERAL SITE DESCRIPTION: Platted Subdivision/wetlands

ACCESS: Lake Volney Circle

EXISTING LAND USE WITHIN ¼ MILE:

North:	Residential/Ag Land	South:	Residential/Ag/Lake
East:	Residential	West:	Ag

TOWNSHIP BOARD NOTIFICATION

The applicant contacted Darryl Wondra, Lexington Township Board Member on September 19, 2016.

NATURAL RESOURCES INFORMATION

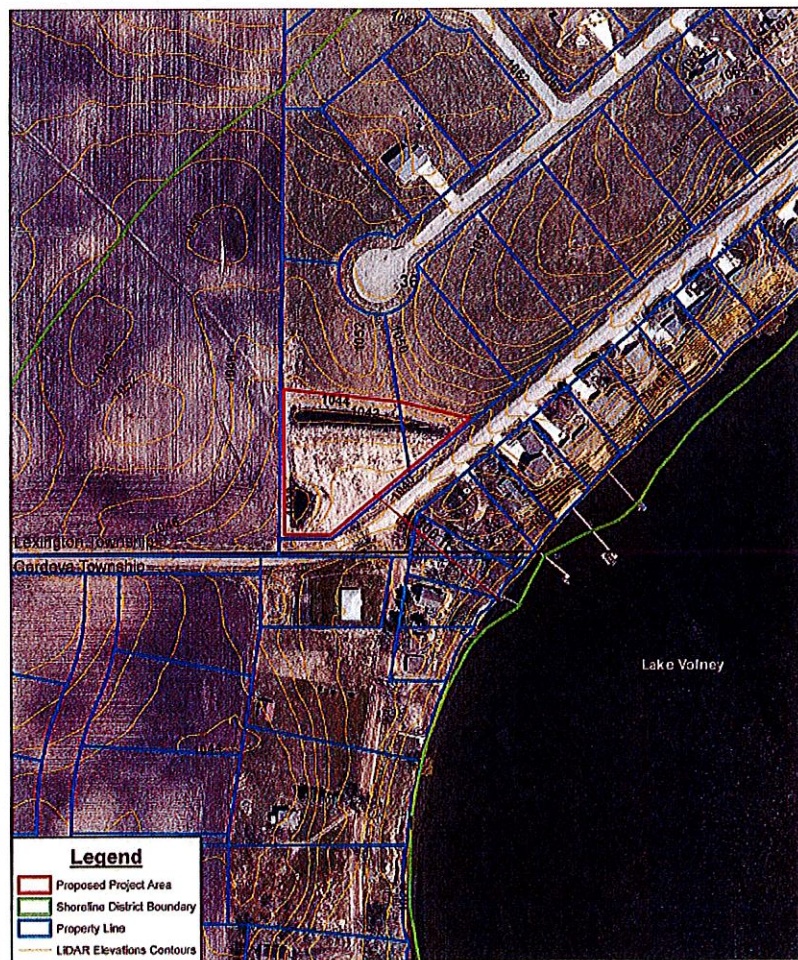
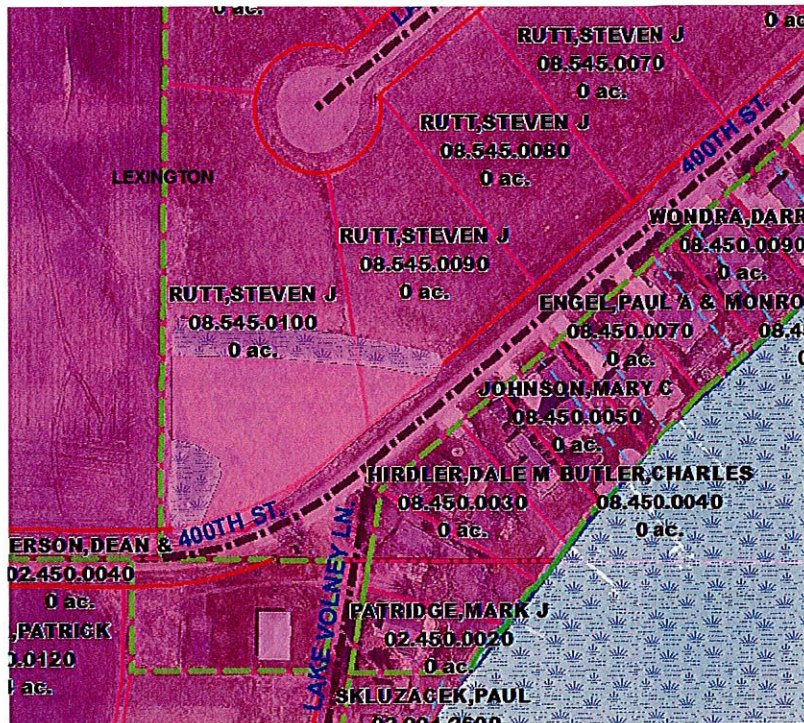
SHORELAND: The proposal is located within the Shoreland District.

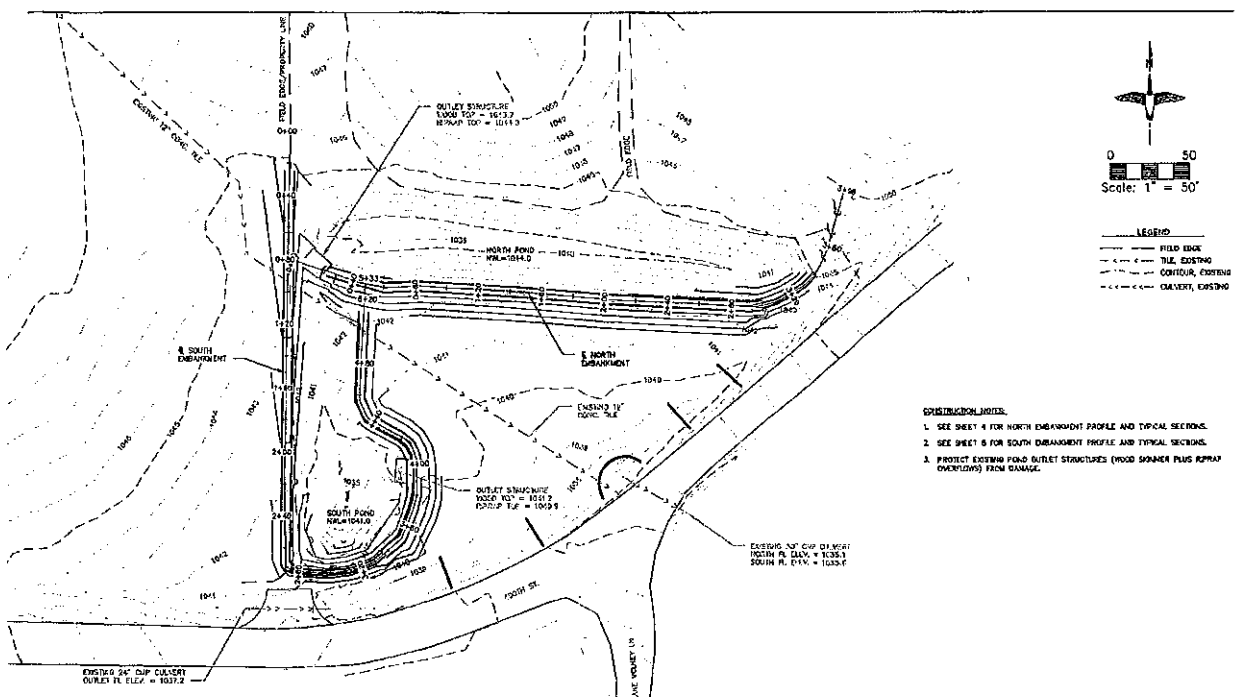
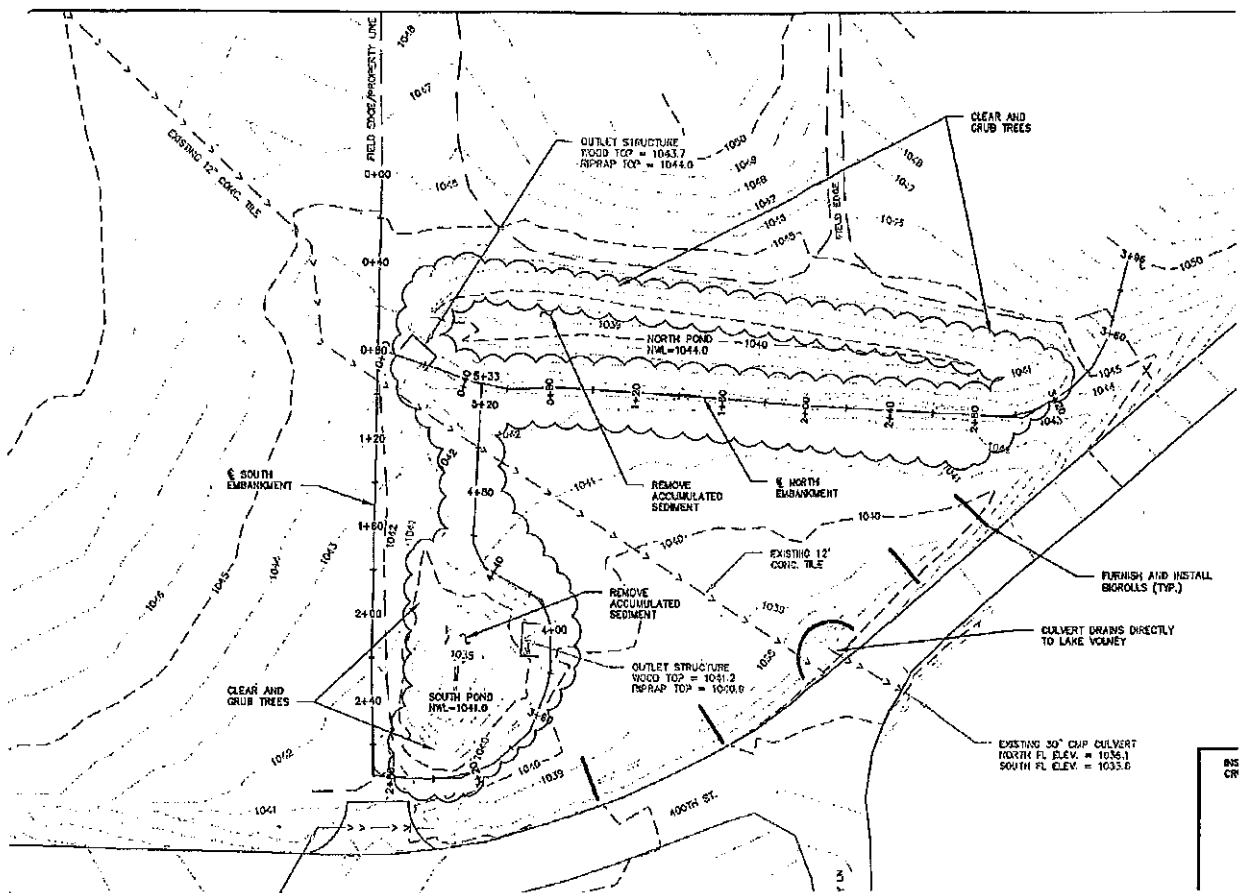
WETLANDS: According to the National Wetlands Inventory, Types 1-3 wetlands located in the quarter-quarter section where the project is proposed.

ATTACHMENTS

Application, Criteria Form, Narrative, Survey/Site Plans, Letter Joshua Mankowski, LSC Resource Specialist.

SITE PLAN/AERIAL PHOTO





PLANNING AND ZONING COMMISSION CONSIDERATIONS

The Planning Commission and staff shall consider possible adverse effects of the proposed conditional use and what additional requirements may be necessary to reduce such adverse effects. Its judgment shall be based upon the following factors to include, but not limited to:

1. Relationship to County plans.
2. The geographical area involved.
3. Whether such use will negatively affect surrounding properties in the area in which it is proposed.
4. The character of the surrounding area.
5. The demonstrated need for such use.
6. Whether the proposed use would cause odors, dust, flies, vermin, smoke, gas, noise, or vibration or would impose hazards to life or property in the neighborhood.
7. Whether such use would inherently lead to or encourage disturbing influences in the neighborhood.
8. Whether stored equipment or materials would be screened and whether there would be continuous operation within the visible range of surrounding residences.
9. Abatement of Environmental Hazards as regulated in this Ordinance
10. Other factors impacting the public health, safety and welfare.

PLANNING AND ZONING COMMISSION CONDITIONS

The Planning Commission shall recommend such conditions relating to the granting of said Conditional Use Permit, as they deem necessary to carry out the intent and purpose of this Ordinance or recommend that the request be denied. Such recommendation shall be in writing. The conditions may include, but are not limited to the following:

Shoreland District. The following additional evaluation criteria and conditions apply within the Shoreland Districts of the County.

1. **Evaluation criteria.** A thorough evaluation of the water body and the topographic, vegetation, and soils conditions on the site must be made to ensure:
 - a. The prevention of soil erosion or other possible pollution of public waters, both during and after construction.
 - b. The visibility of structures and other facilities as viewed from public waters is limited.
 - c. The site is adequate for water supply and on-site sewage treatment.
 - d. The types, uses, and numbers of watercraft that the project will generate are compatible in relation to the suitability of public waters to safely accommodate this watercraft.
2. **Conditions attached to Conditional Use Permits in Shoreland Districts.** The Board of County Commissioners, upon consideration of the criteria listed above and the purposes of this Ordinance, shall attach such conditions to the issuance of the conditional use permits as it deems necessary to fulfill the purposes of this Ordinance. Such conditions may include, but are not limited to, the following:
 - a. Increased setbacks from the ordinary high water level.
 - b. Limitations on the natural vegetation to be removed or the requirement that additional vegetation be planted.
 - c. Special provisions for the location, design, and use of structures, sewage treatment system, watercraft, launching and docking areas, and vehicle parking areas.

PLANNING AND ZONING COMMISSION FINDINGS

Based on the information submitted by the applicant, contained in this report, and as required by the Le Sueur County Zoning Ordinance, the following findings have been developed for this request:

(Please circle one for each item: *Agree, Disagree, Not Applicable.*)

1. *The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.*
2. *The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.*
3. *Adequate utilities, access roads, drainage and other facilities have been or are being provided.*
4. *Adequate measures have been or will be taken to provide sufficient off-street parking and loading space to serve the proposed use.*
5. *Adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.*
6. *Is the Conditional Use Permit consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance?*
7. *Is the Conditional Use Permit consistent with the Comprehensive Land Use Plan?*

Recommend (circle one) approval / denial / table / of Conditional Use Permit.

Le Sueur County

Conditional Use Application-Grading, Excavating & Filling

Activities that involve topographic alterations in all districts shall conform to the standards in Section 18 of the Le Sueur County Zoning Ordinance. Activities within a shoreland district shall conform to the standards in Section 13 of the Le Sueur County Zoning Ordinance.

In addition any activities in any type wetland shall be evaluated in accordance with the Wetland Conservation Act (WCA) regulations, as administered by the Le Sueur County Soil & Water Conservation District (SWCD).

I. Applicant:

Name Le Sueur County SWCD
Mailing Address 181 W. Minnesota Street
City Le Center State MN Zip 56057
Phone # 507-357-4879 Phone # _____

II. Landowner:

Name Steven J Rutt Lake Volney Estates
Mailing Address 39352 221st Ave
City Le Center State MN Zip 56057
Property Address 19347 and 19355 Lake Volney circle
City Le Center State MN Zip 56057
Phone # _____ Phone # _____

III. Parcel Information:

08.545.0090 1.08 ac
Parcel Number 08.545.0100 Parcel Acreage 2.26 ac
Attach Full Legal Description (NOT abbreviated description from tax statement)
Township Lexington Section 36
Subdivision Lake Volney Lot 009/010 Block 001
Estates

IV. Township Notification: Township must be notified of proposed use prior to application.

Lexington Township notified on 9-19-16
(Township Name) (Date)
Board Member Darrell Wondra regarding the proposed use.
(Name)

V. Quantities and Submittal Formats:

- One (1) reproducible 8.5" x 11" copy of the request and all other supporting documents.
- Twenty Three (23) copies must be submitted, if any documents are in color, an aerial, or larger than 8.5" x 11" in size.
- Electronic version of any supporting documents *if available*.
- Additional copies may be requested as deemed necessary by the Department.
- Application must be made in person** by the applicant and/or landowner no later than 12 P.M. on the date of application deadline.
- Appointment is necessary.**
- Applications will not be accepted by mail.**

VI. Fees: Must be paid at the time of application.

Conditional Use Permit \$ 750 After-The-Fact fee is **doubled**.
Filing Fee \$ 46

Additional Fees:

Special Meeting \$ 2,000
After-The-Fact Penalty \$ 1,500 OR 10% of improvement, whichever is greater

VII. Type of Request: Grading, Excavating or Filling.

☐ **Non-Shoreland**
☐ Within Bluff Impact Zone
☐ Within Bluff
Cubic yards of material movement: _____
Cubic yards of material movement: _____
Cubic yards of material movement: _____
TOTAL cubic yards of material movement: _____

☒ **Shoreland- Outside Shore Impact Zone** Cubic yards of material movement: 1355 cy
☐ Within Shore Impact Zone Cubic yards of material movement: _____
☐ Within Bluff Impact Zone Cubic yards of material movement: _____
☐ Within Bluff Cubic yards of material movement: _____
TOTAL cubic yards of material movement: 1355 cy

☐ Assurance security shall be required for projects that are >1500 cubic yards.

VIII. Description of Request:

Topsoil 170 + 255 = 425 cy
Earthwork 750 750 cy
Sediment 180 180 cy
} 1355

a. A full description of request with detailed information including what operations are to occur and what general types of equipment may be used in the operation must be attached.

b. Complete the following in relationship to the proposed Conditional Use Permit.

1. ENVIRONMENTAL IMPACT: Repair existing pond berms and remove accumulated sediment. Remove trees in berms.
2. ADVERSE IMPACT ON SURROUNDING AREAS: None.
3. STORMWATER RUNOFF: No change in impervious surface. Repair berms to force stormwater to route through outlet structures.
4. DOES ANY PART OF THE PROJECT EXTEND BELOW OHWL: No.
5. WETLAND IMPACT: No, per Le Sueur SWCD.
6. SLOPE STABILITY: Project will construct stable sideslopes on berms.
7. CERTIFICATE OF INSURANCE: Contractor shall be insured.
8. MEET ALL APPLICABLE COUNTY STATE & FEDERAL REGULATIONS: Yes.
(For example additional licensing and/or permitting)

IX. Site Plan: Shall include but not limited to the following:

- **Parcels < 5 AC =** 2-foot contours depicting existing and proposed topography.
- **Parcels 5-20 AC =** 5-foot contours depicting existing and proposed topography.
- **Parcels >20 AC =** 10-foot contours depicting existing and proposed topography.
- Location of grading, excavating, and/or filling sites.
- Location of areas for obtaining fill or disposing of excavated materials.
- Tree inventory of all trees, indicating trees to be cut or removed.
(Caliper of 6 inches or greater measured 4.5 feet from ground level).

- | | | | |
|--------------------------------------|-----------|-----------------------|----------------------------|
| • North point | • Lake | • Existing Structures | • Septic system |
| • Setbacks | • River | • Proposed Structures | • Well |
| • Property Lines | • Wetland | • Lot Dimensions | • Access (size & location) |
| • Road Right-Of-Way | • Stream | • Ponds | • Easements |
| • Landscape, screening and buffering | | | • Drainage |

• Site plan & As-Built must be completed by a surveyor or professional engineer.

X. Restoration Plan: Shall include but not limited to the following:

- ✓ • Areas of restoration shall include the application of a minimum of 4 inches of topsoil or similar material that will support plant growth. *(Must be included in cubic yards calculation of material.)*
Topsoil will be salvaged and replaced.
- ✓ • Reseeded areas indicated with type of vegetation. *(Shall meet minimum standards by the SWCD)*
See Restoration Notes on Sheet 1
- ✓ • Tree replacement plan. *(Areas located within the Bluff Impact Zone, Bluff, Shoreland & Conservancy Distircts)*
 - Root zone of existing trees shall be preserved and protected during development.
 - Replace one tree for every tree that is removed.
 - Replacement trees shall have a minimum caliper of 2 inches at 4.5 feet from ground level.*Trees to be removed are in ponds and will not be replaced.*

XI. Attachments: Shall include but not limited to:

- ☒ a. **Description of Request**-See Part VIII for full details and requirements.
- ☒ b. **Site Plan**-See Part IX for full details and requirements.
- ☒ c. **Full Legal Description**-Not abbreviated description from tax statement.
- ☒ d. **Access approval**-Attach approval in writing from proper road authority.
- ☒ e. **Township Notification**-See Part IV for details and requirements.
- ☒ f. **Septic System Compliance Inspection**
- ☒ g. **Erosion Control Plan**-Attach completed and signed plan including map.
- ☒ h. **Restoration Plan**-See Part X for full details and requirements.
- ☒ i. **Approved Stormwater Pollution Prevention Plan** *< 1.0 ac disturbance*
-Must meet NPDES requirements and prepared by a licensed professional engineer.

XII. Procedure:

The Planning & Zoning Commission shall hold a public hearing on the proposed Conditional Use Permit at a scheduled Planning and Zoning Commission meeting.

The Planning and Zoning Commission is an advisory board to the County Board of Commissioners and will make a recommendation to the County Board.

The Department shall report the findings and recommendations of the Planning Commission to the County Board for final decision.

Action by the County Board shall be a majority vote of its members.

The Department shall notify the applicant and/or landowner in writing of the County Board decision.

A certified copy of the Conditional Use Permit shall be filed with the Le Sueur County Recorder by the Department.

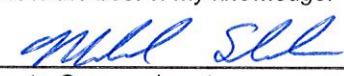
XIII. Signatures:

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.


Applicant signature


9-1-16
Date

I hereby certify with my signature that all data contained herein as well as all supporting data are true and correct to the best of my knowledge.


Property Owner signature

9-1-16
Date

*Prepared by Ryan Jones,
Engineer for Le Sueur County
SWCD*


8-11-16

OFFICE USE ONLY

Request: GRADING, EXCAVATING & FILLING

☐ **Non-Shoreland**

- ☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: _____
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____

TOTAL cubic yards of material movement: _____



Shoreland - Outside Shore Impact Zone

- ☐ Within Shore Impact Zone
☐ Within Bluff Impact Zone
☐ Within Bluff

Cubic yards of material movement: 1355
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____
 Cubic yards of material movement: _____

TOTAL cubic yards of material movement: 1355

Pre-App Date 9-14-10
 Meeting Date 10-13-10
 60 Day 12-11-10
 Zoning District RR

Lake Classification PD
 Lake Volney
 FEMA Panel # 27079C0 300
 Flood Zone Xoutside

Feedlot	500'	1000'	<input checked="" type="checkbox"/> N
Wetland Type	1-2	3-8	<input checked="" type="checkbox"/> N
Water courses		Y	<input checked="" type="checkbox"/> N
Bluff		Y	<input checked="" type="checkbox"/> N

- | | | | |
|---|--|---|-------------------------------|
| <input checked="" type="checkbox"/> Request Description | <input checked="" type="checkbox"/> Access Approval | <input checked="" type="checkbox"/> Septic | Comp Insp / Design |
| <input checked="" type="checkbox"/> Site Plan | <input checked="" type="checkbox"/> Erosion Control Plan | <input checked="" type="checkbox"/> Meeting | <u>Reg</u> / ATF / Spec |
| <input checked="" type="checkbox"/> Full Legal | <input type="checkbox"/> | <input checked="" type="checkbox"/> Fee | \$ <u>460 - \$750 In-kind</u> |
| <input checked="" type="checkbox"/> Ordinance | <input type="checkbox"/> Other _____ | <input type="checkbox"/> Penalty | \$ _____ |

<input checked="" type="checkbox"/> Application Complete	<u>Michelle R. Mottler</u>	<u>9-14-10</u>	<u>16312</u>
	Planning & Zoning Department Signature	Date	Permit #

LE SUEUR COUNTY CONDITIONAL USE PERMIT CRITERIA

Permit #

Name of Applicant: LE SUEUR CO SWCD

Conditional Use Permit #: 16312

Name of Property Owner: STEVEN RUTT

Conditional Use Permit Request: TO ALLOW GRADING, EXCAVATING, AND FILLING OF APPROXIMATELY 1355 CUBIC YARDS OF MATERIAL

1. The conditional use will not be injurious to the use and enjoyment of other property in the immediate vicinity for the purposes already permitted, nor substantially diminishes and impairs property values within the immediate vicinity.

CR AG PT DR BB JD SO SK DK DRY TOTAL

1.

--	--	--	--	--	--	--	--	--	--	--	--

Explain _____

2. The establishment of the conditional use will not impede the normal and orderly development and improvement of surrounding vacant property for uses predominant in the area.

CR AG PT DR BB JD SO SK DK DRY TOTAL

2.

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Explain _____

3. Adequate utilities, access roads, drainage and other facilities have been or are being provided.

CR AG PT DR BB JD SO SK DK DRY TOTAL

3.

--	--	--	--	--	--	--	--	--	--	--	--

Explain _____

4. Adequate measures have been or will be taken to provide sufficient off-street parking and loading space to service the proposed use.

CR AG PT DR BB JD SO SK DK DRY TOTAL

4.

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Explain _____

5. Adequate measures have been or will be taken to prevent and control offensive odor, fumes, dust, noise and vibration, so that none of these will constitute a nuisance, and to control lighted signs and other lights in such a manner that no disturbance to neighboring properties will result.

CR AG PT DR BB JD SO SK DK DRY TOTAL

5.

--	--	--	--	--	--	--	--	--	--	--	--

Explain _____

6. The conditional use is consistent with and supported by the statement of purposes, policies, goals and objectives in the Ordinance.

CR AG PT DR BB JD SO SK DK DRY TOTAL

6.

--	--	--	--	--	--	--	--	--	--	--	--

Explain _____

7. The conditional use is consistent with the Comprehensive Land Use Plan.

CR AG PT DR BB JD SO SK DK DRY TOTAL

--	--	--	--	--	--	--	--	--	--	--	--

Explain _____

If all answers are "YES" by a majority of the Planning Commission, the criteria for granting of the Conditional Use Permit request have been met. The Conditional Use Permit will maintain the goals of safety, health and the general welfare of the public.

Date: _____ APPROVED _____ DENIED _____ PZ Chairperson _____

COUNTY BOARD MEETING DATE _____

LE SUEUR COUNTY ENVIRONMENTAL SERVICES
88 SOUTH PARK AVE.
LE CENTER, MINNESOTA 56057-1600

Phone (507) 357-8540 (direct line)

Fax (507) 357-8541

Date: 08/22/2016

To: Le Sueur County Planning and Zoning Commission

From: Joshua Mankowski, Environmental Resources Specialist

Applicant:

Le Sueur County SWCD

Property owner:

Steven Rutt

Property:

08.545.0090 & 08.545.0100

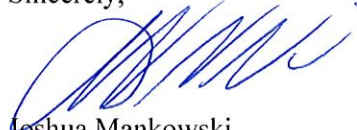
Description:

Application to allow Grading, Excavating, and Filling of approximately 1355 Cubic Yards of Material.

Recommendation:

I would recommend approval of the application for the proposed work. The engineered project will improve stormwater discharging to Lake Volney, thus reducing pollutant loads to the lake.

Sincerely,



Joshua Mankowski
Le Sueur County
Environmental Resources Specialist

XI. Attachments

a. Description of Request

This project is proposed by the Le Sueur County Soil and Water Conservation District (SWCD) in order to alleviate problems with the stormwater management ponds at the Lake Volney Estates subdivision in Lexington Township, immediately northwest of Lake Volney.

There are several problems with the existing stormwater management ponds that will be corrected with the project:

1. During the large rainfall events of June 2014 an excessive amount of sediment washed into the ponds from the farm field to the west, especially the south pond. This project includes removal of this sediment.
2. A diversion berm will be constructed along the western property line, to direct field runoff around the ponds and toward the road ditch. Removing the runoff from the agricultural field from the pond system will improve the treatment of runoff from the subdivision.
3. Since construction, portions of the berm have settled and stormwater bypasses the outlet control structures. The berms around the ponds will be raised in order to force runoff to flow through the pond outlet control structures as originally designed.
4. Trees that have grown up within the pond embankments shall be removed, as there are long-term maintenance issues associated with tree roots compromising the integrity of the embankment.

Ultimately the project is intended to improve the treatment and rate control that occurs within the stormwater treatment ponds.

Disturbed areas will be seeded and protected with erosion control blanket or mulch. Since it is anticipated that there will be truck traffic from bringing borrow material onto the site, a construction exit will be placed at the access to prevent tracking onto the roadway. Biorolls will be placed downstream of work and at the road culvert to prevent migration of sediment.

Equipment to be used for construction would likely be an excavator (track hoe), dozer, skid loader, and dump trucks.

b. Site Plan

See Sheets 2 and 3 of the Construction Plan, and the attached Site Location Map.

c. Full Legal Description

Le Sueur County – Lexington Township

19347 Lake Volney Circle

CIC #45 LAKE VOLNEY ESTATES Lot-009 Block-001 & COMMON ELEMENT (ROAD) 47,044 SF

19355 Lake Volney Circle

CIC #45 LAKE VOLNEY ESTATES Lot-010 Block-001 & COMMON ELEMENT (ROAD) 98,503 SF

d. Access Approval

Access to the site will be via the existing field approach on the south end of the pond area.

e. Township Notification – see CUP application sheet 1, part IV.

f. Septic System Compliance Inspection

There are no structures or septic systems on these two lots.

g. Erosion Control Plan

See attached form, and Sheet 2 of the Construction Plan

h. Restoration Plan

See attached form, and Sheet 1 of the Construction Plan

i. Approved Stormwater Pollution Prevention Plan

The project's footprint is less than one acre and does not require a NPDES Construction Stormwater Permit. However, erosion prevention and sediment control practices are incorporated into the plans and through the Erosion Control Plan required under part g above.

PROJECT MANUAL

**LAKE VOLNEY ESTATES
POND REPAIRS**

LOCATED IN:

SE ¼ - Section 36
Lexington Township
Le Sueur County

PREPARED FOR:

Lake Volney Estates

AND THE

Le Sueur County
Soil and Water Conservation District

PREPARED BY:

South Central Technical Service Area
1160 South Victory Drive, Suite 3
Mankato, MN 56001

I hereby certify that this plan, specification, or report was prepared by me or under my direct supervision and that I am a duly Licensed Professional Engineer under the laws of the State of Minnesota.

Ryan T. Jones
Ryan T. Jones

Date: 8-11-2016

Reg. No. 44622

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MN-23 Earthfill
MN-26 Topsoiling

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Sheet 2 Erosion Control & Removals
Sheet 3 Embankment Repairs
Sheet 4 North Basin Details
Sheet 5 South Basin Details

COOPERATOR'S REVIEW AND APPROVAL STATEMENT

I have reviewed the plans and specifications and agree to complete the work accordingly. Modification of these plans and specifications must be approved by the South Central Technical Service Area before installation. Failure to meet these plans and specifications may jeopardize my State or Federal cost-share funding.

I am responsible for clearly locating and marking all private utilities and tile lines within the work area. Failure to locate and mark private utilities and tile lines may increase my construction costs. I am responsible for securing all necessary permits and completing the work in accordance with all Local, State, and Federal Laws. I am responsible for all negotiations and agreements with the contractor(s). I will be available during construction to discuss potential modifications and conduct necessary negotiations with the contractor(s).

(Cooperator's Signature)

(Date)

CONTRACTOR'S REVIEW AND APPROVAL STATEMENT

I have reviewed the plans and specifications and agree to complete the work accordingly. Modification of these plans and specifications must be approved by the owner and the South Central Technical Service Area before installation. Failure to meet these plans and specifications may jeopardize the owner's State or Federal cost-share funding.

I understand that before the start of construction, the owners of all utilities must be notified. The excavator is responsible for giving this notice by calling the "Gopher State One Call" system at 1-800-252-1166 or at www.gopherstateonecall.org at least 48 hours prior to any excavation.

(Contractor's Signature)

(Date)

BID SCHEDULE

PROJECT: Lake Volney Estates Pond Repairs

OWNER: Lake Volney Estates
Lexington Township -- Le Sueur County

ENGINEER: Ryan Jones, P.E.
South Central Technical Service Area
1160 South Victory Drive, Suite 3
Mankato, MN 56001
Telephone (507) 345-1051

PROJECT MANAGER: Michael Schultz, Senior District Technician
181 W. Minnesota St.
Le Center, MN. 56057
(507)357-4879 ex.3

TERMS AND CONDITIONS:

A. GENERAL

1. This is a Unit Price Contract
2. Duplicate Bid Forms are provided herein. One set shall be completed in ink and returned to the owner. The second set may be retained by the bidder
3. Submit bid for all items. Failure to do so will preclude consideration of the bid. In case of error in the extension of prices, the unit price shall govern. In case of error in summation, the total corrected bid amounts shall govern.

B. PAYMENT

1. All items shall be paid on the basis of actual quantities measured except those designated as plan quantities (P) on the Bid Schedule.
2. Pay Units shown on the Bid Schedule are abbreviated as follows: Cubic Yards, C.Y.; Cubic Feet, C.F.; Gallon, Gal.; Lineal Foot, L.F.; Lump Sum, L.S.; Pound, lbs.; Square Foot, S.F.; Square Yard, S.Y.; Staked Quantities, S.Q.; and Furnish and Install, F & I.
3. Mobilization shall consist of preparatory work and operations including, but not limited to, those necessary for: the movement of personnel, equipment, supplies and incidentals to the project site; the establishment of all Contractor offices or other facilities necessary for work on the project; and the cost of insurance and bonds necessary for the project. The amount bid for mobilization shall not exceed five (5) percent of the total bid price.
4. Unless indicated as a plan quantity (P) or noted otherwise, a quantity may be increased or decreased no more than 25 percent from the amount shown on the Bid Schedule, with no change in unit price. If a quantity changes more than 25 percent, the unit price for that item shall be renegotiated upon written request by the Engineer or the Contractor. Plan quantities (P) are based upon original design data, which includes surveys, design assumptions, drawings and calculations. Changes in the number of units of a plan quantity (P) item shall not be made unless authorized by the Engineer.
5. Work items not included in the Bid Schedule but required by the Construction Plans or Specifications shall be considered incidental to the project.

6. Work done contrary to instructions of the Engineer, and any work done beyond that which is specified or ordered, will be considered to be Unauthorized work and will not be paid for under the provisions of this bid. Unauthorized work shall be removed by and at the expense of the Contractor, upon receipt of a written order from the Engineer.
7. Payments requested by the Contractor, prior to completion and certification of the project, may be made, if authorized by the Engineer. If authorized, ten percent (10%) of the approved "partial" payment will be withheld until project completion.

C. MEASUREMENT

1. Unless noted otherwise, earthfill/embankment materials shall be measured by volume in cubic yards. The basis of measure is by compacted volume (CV) and not excavated volume or loose volume. The Contractor shall apply his/her own compaction factor. Compacted volume shall be computed by the average end area method as determined by cross section measure of the materials.
2. Thicknesses or depths will be measured according to neat lines shown on the drawings or as altered to fit site conditions, and preconstruction surveys, as directed by the Engineer.
3. All items, which are measured by the linear foot, such as pipe culverts, guardrail, under drains, etc., will be measured parallel to the base or foundation upon which the structure is placed.
4. Materials, which are measured by the cubic yard vehicular measure, shall be hauled in approved vehicles and measured at the point of delivery. The vehicles may be of any size or type, provided the body is shaped such that its capacity and actual contents can be accurately measured. All vehicles shall be loaded to at least their struck capacity, as determined by the Engineer, with sufficient over-allowance being made for settlement during transit. Each load shall be leveled upon its arrival at the point of delivery, if so directed by the Engineer. No allowance will be made for material heaped above the struck capacity of the vehicle. Deductions will be made in 2 cubic yard increments on loads, which contain less than the struck capacity.
5. In computing quantities of materials that require overlapping, such as geotextile fabric, geomembrane, or reinforcement wire, the net area covered by the material, excluding overlaps, shall be measured for payment. The Contractor shall be responsible for additional quantities of material to account for overlapping requirements.
6. When mutually agreed upon in writing, materials may be measured in units other than the unit of measurement specified as the basis of payment, but the measured quantity shall be converted to the specified unit of measure for payment. Factors for conversion from one unit of measurement to another shall be as established by the Engineer and agreed to by the Contractor.
7. The term "lump sum", when used as a unit of measurement for payment, will mean complete payment for that item of work as shown on the drawings and described in the specifications and will be construed to include all necessary fittings and accessories.
8. When standard manufactured items are specified such as fencing, wire, plates, rolled shapes, pipe conduit, etc., and these items are identified by gage, unit weight, section, dimensions, etc., such identification will be considered to be nominal weights or dimensions. Unless more stringently controlled by tolerances in the cited specifications, manufacturing tolerances established by the industries involved will be accepted.

BID FORM
Lake Volney Estates Pond Repairs

Item No.	Item Description	Pay Unit	Estimated Quantity	Unit Price	Bid Amount
1	MOBILIZATION	L.S.	1		
2	STABILIZED CONSTRUCTION EXIT	L.S.	1		
3	CLEARING & GRUBBING	ACRE	0.7 (P)		
4	SALVAGING & SPREADING TOPSOIL (approx. 170 c.y. north embankment and 255 c.y. south embankment)	L.S.	1		
5	REMOVE AND SPREAD SEDIMENT FROM PONDS	C.Y.	180 (P)		
6	EARTHWORK - CLASS 'C' COMPACTION (approx. 396 c.y. north embankment and 354 c.y. south embankment)	C.Y.	750 (CV)(P)		
7	SEDIMENT CONTROL LOG, TYPE STRAW	L.F.	100		
8	SEEDING	ACRE	0.9		
9	SEED MIX 35-261	LBS	32		
10	MULCH MATERIAL, TYPE 1	TONS	1.2		
11	EROSION CONTROL BLANKET, CATEGORY 2 A	S.Y.	1600		

TOTAL BID PRICE (Total of all Bid Amounts):

(P) - PLAN QUANTITY FOR WHICH NOT DIRECT MEASUREMENT SHALL BE MADE.

(CV) - COMPACTED VOLUME

The undersigned offers to furnish labor, materials and equipment necessary to complete the project in accordance with the project plans, specifications and bid schedule, at the unit prices and/or amount specified.

NAME: _____
SIGNATURE: _____
DATE: _____

Notes:

All sales tax paid by the contractor in securing product for this bid shall be included as part of the total bid price.

Minnesota Construction Specification 2—Clearing and Grubbing

1. Scope

The work consists of clearing and grubbing and disposal of trees, snags, logs, brush, stumps, shrubs, and rubbish from the project area.

2. Protection of existing vegetation

Trees and other vegetation designated to remain undisturbed shall be protected from damage throughout the duration of the construction period. Any damages resulting from the contractor's operations or neglect shall be repaired by the contractor.

Earthfill, stockpiling of materials, vehicular parking, and excessive foot or vehicular traffic shall not be allowed within the drip line of vegetation designated to remain in place. Vegetation damaged by any of these or similar actions shall be replaced with viable vegetation of the same species, similar condition, and like size unless otherwise approved by the engineer.

Any cuts, skins, scrapes, or bruises to the bark of the vegetation shall be carefully trimmed and local nursery accepted procedures used to seal damaged bark.

Any limbs or branches 0.5 inch or larger in diameter that are broken, severed, or otherwise seriously damaged during construction shall be cut off at the base of the damaged limb or branch flush with the adjacent limb or tree trunk. All roots 1-inch or larger in diameter that are cut, broken, or otherwise severed during construction operations shall have the end smoothly cut perpendicular to the root. Roots exposed during excavation or other operations shall be covered with moist earth or backfilled as soon as possible to prevent the roots from drying out.

3. Marking

The limits of the area(s) to be cleared and grubbed will be marked by stakes, flags, tree markings, or other suitable methods. Trees to be left standing and uninjured will be designated by special markings placed on the trunk about 6 feet above the ground surface.

4. Clearing and grubbing

All trees not marked for preservation and all snags, logs, brush, stumps, shrubs, rubbish, and similar materials shall be cleared from within the limits of the designated areas. Unless otherwise specified, all stumps, roots, and root clusters that have a diameter of 1 inch or larger shall be grubbed out to a depth of at least 2 feet below subgrade for concrete structures and 1 foot below the ground surface at embankment sites and other designated areas.

5. Disposal

All materials cleared and grubbed from the designated areas shall be disposed of at locations shown on the drawings or in a manner specified in section 6. The contractor is responsible for complying with all local rules and regulations and the payment of any and all fees that may result from disposal at locations away from the project site.

6. Construction details

Clearing and grubbing is required within the work limits to allow for a proper foundation for the embankment repairs

The vegetative materials shall be disposed of by removal from the site. All materials shall be disposed of in accordance with Federal, State, and local guidelines.

The foundation of the embankment shall be free of all woody materials as approved by the Engineer.

Minnesota Construction Specification 23—Earthfill

1. Scope

The work consists of the construction of earth embankments, other earthfills, and earth backfills required by the drawings and specifications.

Earthfill is composed of natural earth materials that can be placed and compacted by construction equipment operated in a conventional manner.

Earth backfill is composed of natural earth material placed and compacted in confined spaces or adjacent to structures (including pipes) by hand tamping, manually directed power tampers or vibrating plates, or their equivalent.

2. Material specifications

All fill material shall be obtained from required excavations and designated borrow areas. The selection, blending, routing, and disposition of material in the various fills shall be subject to approval by the engineer.

Fill materials shall contain no frozen soil, sod, brush, roots, or other perishable material. Rock particles larger than the maximum size specified for each type of fill shall be removed prior to compaction of the fill.

The types of material used in the various fills shall be as listed and described in the specifications and drawings.

3. Foundation preparation

Foundations for earthfill shall be stripped to remove vegetation and other unsuitable material or shall be excavated as specified.

Except as otherwise specified, earth foundation surfaces shall be graded to remove surface irregularities and shall be scarified parallel to the axis of the fill or otherwise acceptably scored and loosened to a minimum depth of 2 inches. The moisture content of the loosened material shall be controlled as specified for the earthfill, and the surface material of the foundation shall be compacted and bonded with the first layer of earthfill as specified for subsequent layers of earthfill.

Earth abutment surfaces shall be free of loose, uncompacted earth in excess of 2 inches in depth normal to the slope and shall be at such a moisture content that the earthfill can be compacted against them to produce a good bond between the fill and the abutments.

Rock foundation and abutment surfaces shall be cleared of all loose material by hand or other effective means and shall be free of standing water when fill is placed upon them. Occasional rock outcrops in earth foundations for earthfill, except in dams and other structures designed to restrain the movement of water, shall not require special treatment if they do not interfere with compaction of the foundation and initial layers of the fill or the bond between the foundation and the fill.

Foundation and abutment surfaces shall be no steeper than one horizontal to one vertical unless otherwise specified. Test pits or other cavities shall be filled with compacted earthfill conforming to the specifications for the earthfill to be placed upon the foundation.

4. Placement

Earthfill shall not be placed until the required excavation and foundation preparation have been completed and the foundation has been inspected and approved by the engineer. Earthfill shall not be placed upon a frozen surface nor shall snow, ice, or frozen material be incorporated in the earthfill matrix.

Earthfill shall be placed in approximately horizontal layers. The thickness of each layer before compaction shall not exceed the maximum thickness specified in section 9 or shown on the drawings. Materials placed by dumping in piles or windrows shall be spread uniformly to not more than the specified thickness before being compacted.

Hand compacted earth backfill shall be placed in layers whose thickness before compaction does not exceed the maximum thickness specified for layers of earth backfill compacted by manually directed power tampers.

Earth backfill shall be placed in a manner that prevents damage to the structures and allows the structures to assume the loads from the earth backfill gradually and uniformly. The height of the earth backfill adjacent to a structure shall be increased at approximately the same rate on all sides of the structure.

Earthfill and earth backfill in dams, levees, and other structures designed to restrain the movement of water shall be placed to meet the following additional requirements:

- (a) The distribution of materials throughout each zone shall be essentially uniform, and the earthfill shall be free from lenses, pockets, streaks, or layers of material differing substantially in texture, moisture content, or gradation from the surrounding material. Zone earthfills shall be constructed concurrently unless otherwise specified.
- (b) If the surface of any layer becomes too hard and smooth for proper bond with the succeeding layer, it shall be scarified parallel to the axis of the fill to a depth of not less than 2 inches before the next layer is placed.
- (c) The top surface of embankments shall be maintained approximately level during construction with two exceptions: A crown or cross-slope of about 2 percent shall be maintained to ensure effective drainage, or as otherwise specified for drainfill or sectional zones.
- (d) Dam embankments shall be constructed in continuous layers from abutment to abutment except where openings to facilitate construction or to allow the passage of streamflow during construction are specifically authorized in the contract.
- (e) Embankments built at different levels as described under (c) or (d) above shall be constructed so that the slope of the bonding surfaces between embankment in place and embankment to be placed is not steeper than 3 feet horizontal to 1 foot vertical. The bonding surface of the embankment in place shall be stripped of all material not meeting the requirements of this specification and shall be scarified, moistened, and recompacted when the new earthfill is placed against it. This ensures a good bond with the new earthfill and obtains the specified moisture content and density at the contact of the in-place and new earthfills.

5. Control of moisture content

During placement and compaction of earthfill and earth backfill, the moisture content of the material being placed shall be maintained within the specified range.

The application of water to the earthfill material shall be accomplished at the borrow areas insofar as

practicable. Water may be applied by sprinkling the material after placement on the earthfill, if necessary. Uniform moisture distribution shall be obtained by disking.

Material that is too wet when deposited on the earthfill shall either be removed or be dried to the specified moisture content prior to compaction.

If the top surface of the preceding layer of compacted earthfill or a foundation or abutment surface in the zone of contact with the earthfill becomes too dry to permit suitable bond, it shall either be removed or scarified and moistened by sprinkling to an acceptable moisture content before placement of the next layer of earthfill.

6. Compaction

Earthfill—Earthfill shall be compacted according to the following requirements for the class of compaction specified:

Class A compaction—not used.

Class B compaction—not used.

Class C compaction—Each layer of earthfill shall be compacted by the specified number of passes of the type and weight of roller or other equipment specified or by an approved equivalent method. Each pass shall consist of at least one passage of the roller wheel or drum over the entire surface of the layer.

Earth backfill—Earth backfill adjacent to structures shall be compacted to a density equivalent to that of the surrounding in-place earth material or adjacent required earthfill or earth backfill. Compaction shall be accomplished by hand tamping or manually directed power tampers, plate vibrators, walk-behind, miniature, or self-propelled rollers. Unless otherwise specified heavy equipment including backhoe mounted power tampers or vibrating compactors and manually directed vibrating rollers shall not be operated within 2 feet of any structure. Towed or self-propelled vibrating rollers shall not be operated within 5 feet of any structure. Compaction by means of drop weights operating from a crane or hoist is not permitted.

The passage of heavy equipment will not be allowed:

- Over cast-in-place conduits within 14-days after placement of the concrete
- Over cradled or bedded precast conduits within 7 days after placement of the concrete cradle or bedding
- Over any type of conduit until the backfill has been placed above the top surface of the structure to a height equal to one-half the clear span width of the structure or pipe or 2 feet, whichever is greater, except as may be specified in section 9.

Compacting of earth backfill adjacent to structures shall not be started until the concrete has attained the strength specified in section 9 for this purpose. The strength is determined by compression testing of test cylinders cast by the engineer for this purpose and cured at the work site in the manner specified in ASTM C 31 for determining when a structure may be put into service.

When the required strength of the concrete is not specified as described above, compaction of earth backfill adjacent to structures shall not be started until the following time intervals have elapsed after placement of the concrete.

<u>Structure</u>	<u>Time interval (days)</u>
Vertical or near-vertical walls with earth loading on one side only	14
Walls backfilled on both sides simultaneously	7
Conduits and spillway risers, cast-in-place (with inside forms in place)	7
Conduits and spillway risers, cast-in-place (inside forms removed)	14
Conduits, pre-cast, cradled	2
Conduits, pre-cast, bedded	1
Cantilever outlet bents (backfilled both sides simultaneously)	3

7. Reworking or removal and replacement of defective earthfill

Earthfill placed at densities lower than the specified minimum density or at moisture contents outside the specified acceptable range of moisture content or otherwise not conforming to the requirements of the specifications shall be reworked to meet the requirements or removed and replaced by acceptable earthfill. The replacement earthfill and the foundation, abutment, and earthfill surfaces upon which it is placed shall conform to all requirements of this specification for foundation preparation, approval, placement, moisture control, and compaction.

8. Testing

Compaction shall be verified using the Qualified Compaction (Visual Inspection) Method. Each layer of the embankment shall be compacted by the construction equipment as specified. Embankment construction shall not continue when, in the opinion of the Engineer, the existing soil moisture content does not allow proper compaction.

9. Construction details

Earthfill compaction shall be classified as Class C. The maximum thickness of a layer of fill before compaction shall be as follows:

- 9 inches if compacted with 3 passes of a 200 psi tamping roller, OR
- 6 inches if compacted with loaded rubber tire hauling equipment, OR
- 4 inches if compacted with a manually directed power tamper.

If compaction is obtained using loaded rubber tire hauling equipment, every point on the surface shall be traversed by at least one tread track.

Earthfill placed within 2 feet of a structure shall be compacted by a manually directed power tamper.

The maximum size of rock fragments incorporated in the earthfill shall be 6 inches except hand compacted backfill shall have no rock fragments larger than 3 inches.

The minimum moisture content of the earthfill material shall be such that when it is kneaded in the hand, the earthfill will form a firm ball that does not readily separate.

The minimum moisture content of the earthfill material shall be maintained within the limit required to ensure the crushing and blending of the soil clods and aggregations into a reasonable homogeneous mass.

The maximum moisture content of the earthfill material shall be maintained within the limit to prevent bulking or dilatance of the earthfill under the action of the hauling or compacting equipment. The earthfill material shall not adhere to the treads and tracks of compacting equipment. If soils are saturated, the Contractor shall delay operations until the soil dries to field capacity or less.

Embankment construction shall not continue when, in the opinion of the Engineer, the existing soil moisture content does not allow proper compaction.

Minnesota Construction Specification 26—Topsoiling

1. Scope

The work consists of furnishing and spreading topsoil to specified depths at locations shown on the drawings.

2. Quality of topsoil

Topsoil shall consist of friable surface soil reasonably free of grass, roots, weeds, sticks, rocks, or other unsuitable material. Additional quality requirements, if any, are in section 6 of this specification.

3. Furnishing

Topsoil shall be salvaged from designated earth surfaces that will be disturbed by construction activities. After designated sites have been cleared and grubbed, the topsoil shall be removed from the designated areas and stockpiled at locations shown on the drawings or acceptable to the engineer. Unsuitable material encountered during removal of topsoil shall be disposed of at locations shown on the drawings or approved by the engineer, or it will be otherwise hauled and disposed of at locations removed from the construction site. The contractor is responsible for complying with all local rules and regulations and the payment of any and all fees that may result from the disposal at locations outside the construction work limits.

4. Stockpiling

Stockpiles of topsoil shall not conflict with the requirements of Construction Specification 5, Pollution Control, when made a part of this contract.

5. Spreading

Spreading shall not be performed when the ground or topsoil is frozen, excessively wet, or otherwise in a condition detrimental to uniform spreading operations. Surfaces designated to receive a topsoil application shall be lightly scarified just before the spreading operation. Where compacted earthfills are designated to be topsoiled, the topsoil shall be placed concurrently with the earthfill and shall be bonded to the compacted fill with the compacting equipment.

Following the spreading operation, the topsoil surface shall be left reasonably smooth and without ruts or surface irregularities that could contribute to concentrated waterflow downslope.

6. Construction details

The topsoil shall be salvaged from within the work limits.

The topsoil shall be spread to a minimum depth of 6 inches over disturbed areas.

The maximum size of rock fragments shall be 3 inches.

LE SUEUR COUNTY ENVIRONMENTAL SERVICES
88 SOUTH PARK AVE.
LE CENTER, MINNESOTA 56057-1620
(507) 357-2251
FAX (507) 357-8541

Erosion and Sediment Control Plan

Goal: To control erosion and prevent sediment and other pollutants from entering the lakes, streams, wetlands, and storm drain systems during construction.

Property Owner: Steven Rutt PID: 08.545.0090
Mailing Address: 39352 221st Avenue Le Center
Property Address: 19347 and 19355 Lake Volney Circle, Le Center
Phone: () Mobile/Cell: ()

Responsible party for Implementation/Inspection: Contractor TBD
Address: _____
Phone: () Mobile/Cell: ()

Erosion & Sediment Control Measures Inspection by LeSueur County SWCD and South Central TSA.

1. Maintain existing vegetation whenever possible and minimize the area of disturbance. Retain and protect trees to enhance future landscaping efforts and to reduce raindrop impact. (Vegetation is the best and most cost-effective erosion control practice).
2. Install all erosion and sediment control practices prior to any soil disturbing activities, when applicable.
3. Phase construction activities to minimize the areas disturbed at one time. This will also allow completed areas to be stabilized and re-vegetated before disturbing adjacent sites.
4. Maintain and protect all natural waterways. Retain at least a 20-foot wide strip of natural vegetation along all waterways to filter out sediment and other pollutants.
5. Minimize the use of impermeable surfaces such as roofs, driveways, parking lots and roads. The Environmental Resources staff must approve all storm water runoff plans.
6. Use rock rip-rap at both the outlet and inlet ends of culverts to prevent scour erosion.
7. Limit construction equipment to designated areas to control soil compaction.
8. Install silt fence on the down-slope perimeter of all disturbed areas according to the attached installation instructions. Sensitive areas such as wetlands, drainage swales and shoreland areas should also be protected with silt fence.
9. Install straw bale checks or rock check dams in areas of concentrated flow.
10. Cover any stockpiled topsoil with plastic or other impervious covering. Use stockpiled topsoil as earthen berms to serve as temporary sediment basins.

11. Mulch all disturbed areas at the rate of one 50-pound bale of straw per 500 square feet. On slopes 4:1 or steeper use the following erosion control blankets that have been pinned to the slope according to the manufacturer's instructions:

2:1 slopes or steeper	Straw/Coconut Blanket or High Velocity Wood Blanket
3:1 slopes or steeper	Wood or Straw Blanket with net on both sides
4:1 slopes or steeper	Wood or Straw Mulch blanket with net on one side
Flat areas	Straw Mulch w/disc anchoring

12. Seed all disturbed areas within seven days of final grading and temporary seed/mulch all areas that will be left inactive for more than seven days. Do not seed later than September 1st. Areas that need to be seeded after this date should be dormant seeded in late October or early November. See the attached instruction sheet for recommended mixtures and rates. The use of native plant materials, including trees and shrubs, is encouraged. Native species will provide good vegetative cover that is adapted to our soils and climate.
13. Apply fertilizer according to soil test recommendations.
14. Install water bars on access roads to prevent concentrated water from flowing down the road and eroding gravel.
15. Attach a site map showing the location of all erosion control practices, property lines, roads, lakes, watercourses, wetlands, on-site systems and building locations.

Note: To reduce mud transported onto paved roads, a rock construction entrance may be required. This will require a six-inch layer of 1-2 inch diameter washed rock a minimum of 50 feet in length.

Inspection and Maintenance

16. Inspect the construction site every 7 days and within 24 hours after every rain event to ensure the practices are working properly (i.e. silt fences, water bars).
17. Clean out the silt fences when they are 1/3 full of sediment or replace with functional silt fences within 24 hours.
18. Clean out sediment basins on a regular basis to maintain capacity.

I agree to install, inspect and maintain the above practices to accomplish the goal of preventing erosion.

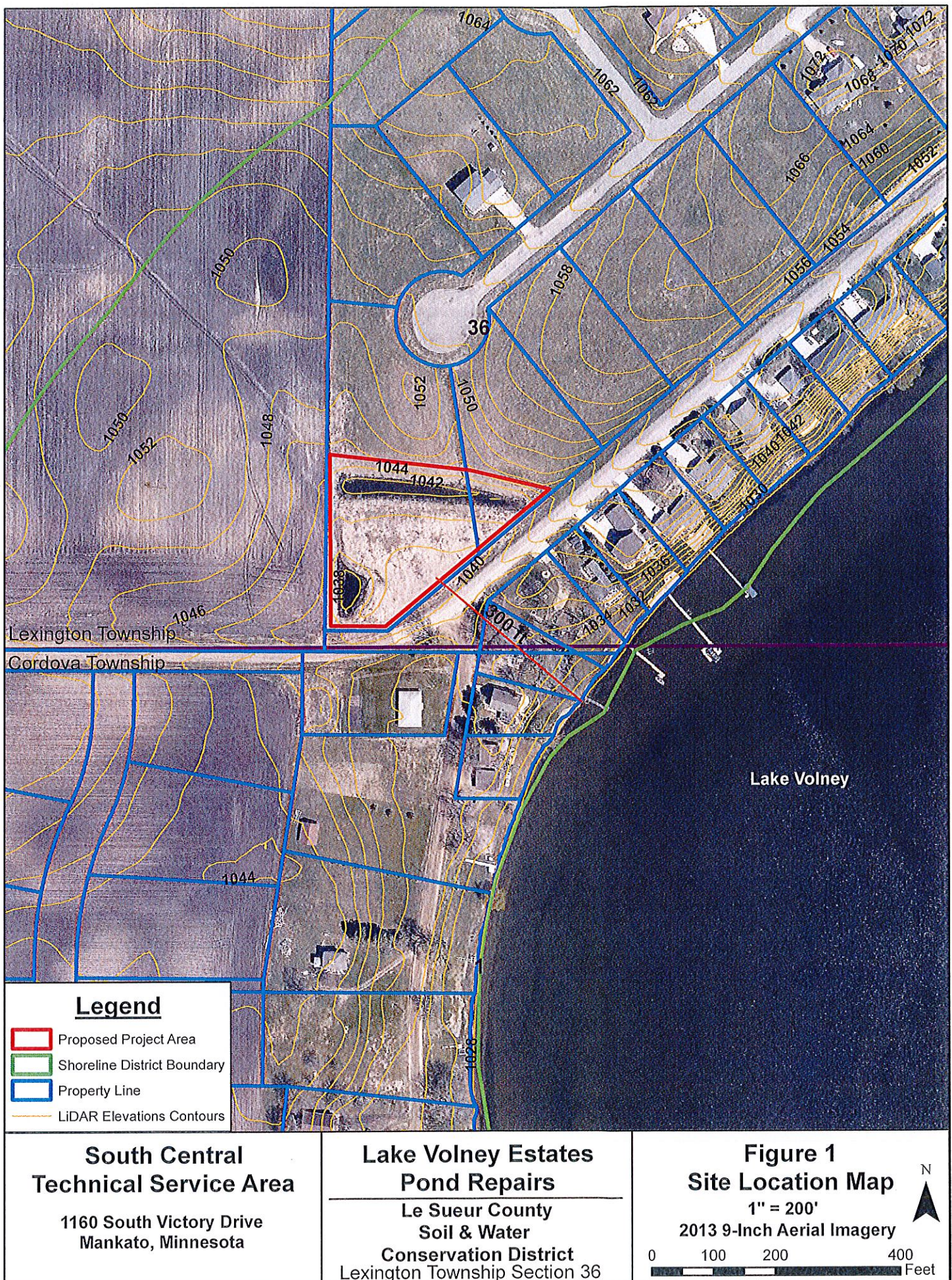
Steve J. Reith
(Property Owner)

9-1-16
(Date)

Ryan T. Jones
(Person Responsible for Implementation)

8-11-16
(Date)

If you have any questions, please contact Environmental Services, at 507-357-8538.



CONSTRUCTION NOTES:

THE OWNER IS RESPONSIBLE FOR OBTAINING LAND RIGHTS AND LOCAL, STATE, AND FEDERAL PERMITS OR OTHER PERMISSION NECESSARY TO PERFORM AND MAINTAIN THE PRACTICE.

BEFORE START OF CONSTRUCTION, THE OWNER OF ANY UTILITIES INVOLVED MUST BE NOTIFIED. THE EXCAVATOR IS RESPONSIBLE FOR GIVING NOTICE BY CALLING "GOPHER STATE ONE-CALL" AT (800) 252-1166 AT LEAST 48 HOURS PRIOR TO ANY EXCAVATION.

THE CONTRACTOR SHALL COORDINATE WITH THE OWNER TO LOCATE ANY PRIVATE UTILITIES THAT MAY BE IN THE VICINITY OF THE PROJECT. THE SOUTH CENTRAL TECHNICAL SERVICE AREA MAKES NO REPRESENTATION OF THE EXISTENCE OR NON-EXISTENCE OF UTILITIES. THE ABSENCE OF UTILITIES ON DRAWINGS DOES NOT ASSURE THAT THERE ARE NO UTILITIES ON SITE.

A PRE-CONSTRUCTION CONFERENCE WITH THE OWNER, CONTRACTOR(S), SWCD REPRESENTATIVE, AND SOUTH CENTRAL TSA ENGINEER OR TECHNICIAN SHALL BE HELD ONE WEEK PRIOR TO START OF CONSTRUCTION. ANY WORK DONE BEFORE CONFERENCE WILL JEOPARDIZE PROJECT APPROVAL AND FUNDING.

MINNESOTA SPECIFICATIONS FOR CONSERVATION PRACTICES APPLY FOR ALL MATERIALS AND CONSTRUCTION WORK. THESE SPECIFICATIONS ARE PART OF THIS PLAN.

CHANGES IN THE DRAWINGS OR SPECIFICATIONS MUST BE AUTHORIZED BY THE OWNER AND THE RESPONSIBLE ENGINEER.

RESTORATION NOTES:

TOP-DRESS THE PROPOSED EMBANKMENTS WITH A MINIMUM OF 6 INCHES OF TOPSOIL.

PRIOR TO SEEDING, THE SEEDBED SHALL BE TILLED TO A MINIMUM DEPTH OF 3 INCHES IN ORDER TO LOOSEN THE SOIL.

DISTURBED AREAS SHALL BE SEEDED WITH MINNESOTA STATE SEED MIX 33-261 (STORMWATER MIX).

DISTURBED AREAS SHALL BE PROTECTED WITH ONE OF THE FOLLOWING METHODS:

1. SLOPES BETWEEN TOP OF BERM AND THE POND WATER LEVEL: PROTECT WITH EROSION CONTROL BLANKET, CATEGORY 2A.
2. ALL OTHER DISTURBED AREAS: PROTECT WITH DISK-ANCHORED MULCH MATERIAL SPREAD AT A RATE OF 2 TONS PER ACRE.

ESTIMATED QUANTITIES						
ITEM	ITEM DESCRIPTION	QUAN.	UNIT	CONST. SPEC.	MATERIAL SPEC.	NOTES:
1	MOBILIZATION	1	L.S.			
2	STABILIZED CONSTRUCTION EXIT	1	L.S.	2573		
3	CLEARING AND GRUBBING	0.7	ACRE	MN-2		(P)
4	SALVAGING & SPREADING TOPSOIL, Includes: (Approx. 170 c.y. N. embankment, 255 c.y. S. embankment.)	1	L.S.	MN-26		
5	REMOVE AND SPREAD SEDIMENT FROM PONDS	180	C.Y.	MN-26		(P)
6	EARTHWORK - CLASS 'C' COMPACTION, Includes: (396 c.y. north embankment and 354 c.y. south embankment)	750	C.Y.	MN-23		(P) (CV)
7	SEDIMENT CONTROL LOG, TYPE STRAW	100	L.F.	2573	3897	
8	SEEDING	0.9	ACRE	2575		
9	SEED MIX 35-261	32	LBS	2575	3876	
10	MULCH MATERIAL, TYPE 1	1.2	TONS	2575	3882	
11	EROSION CONTROL BLANKET, CATEGORY 2A	1600	S.Y.	2575	3885	

(P) - PLAN QUANTITY
(CV) - COMPACTED VOLUME

THE FOLLOWING SPECIFICATIONS FROM THE MINNESOTA DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR CONSTRUCTION, 2016 EDITION, ARE REFERENCED IN THE PLAN

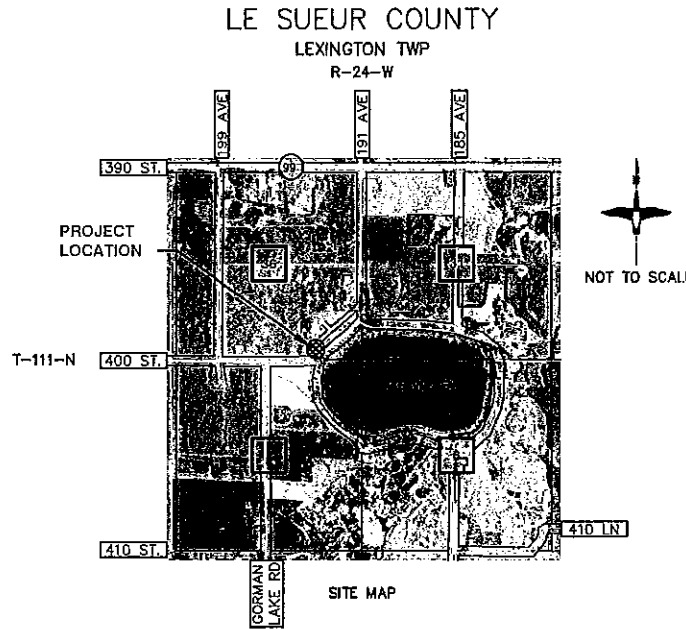
CONSTRUCTION SPECIFICATIONS
2573 STORM WATER MANAGEMENT
2575 CONTROLLING EROSION AND ESTABLISHING VEGETATION

MATERIAL SPECIFICATIONS
3733 GEOTEXTILES
3876 SEED
3882 MULCH MATERIAL
3885 ROLLED EROSION CONTROL PRODUCTS
3897 SEDIMENT CONTROL LOG

LAKE VOLNEY ESTATES
POND REPAIRS

PREPARED FOR THE

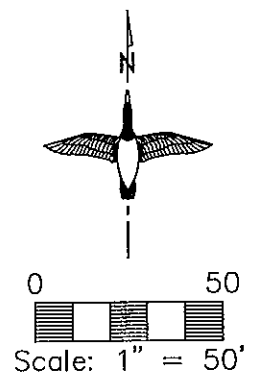
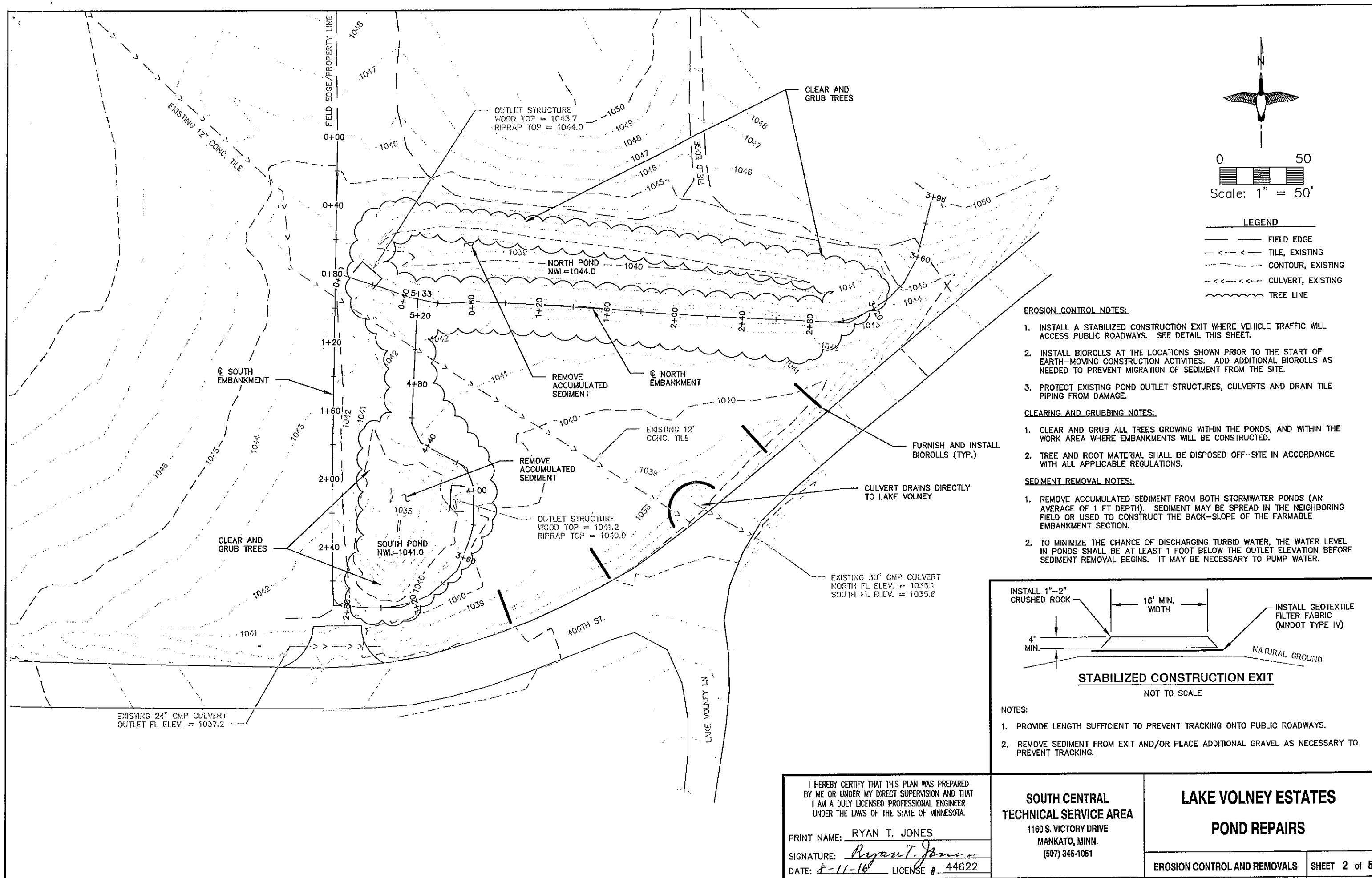
LE SUEUR COUNTY
SOIL & WATER
CONSERVATION DISTRICT



SHEET INDEX

SHEET NO.	TITLE
1	COVER SHEET
2	EROSION CONTROL & REMOVALS
3	EMBANKMENT REPAIRS
4	NORTH BASIN DETAILS
5	SOUTH BASIN DETAILS

CONSTRUCTION CERTIFICATION STATEMENT I HEREBY CERTIFY THAT A FINAL INSPECTION OF THIS PROJECT HAS BEEN PERFORMED AND THAT THE WORK COMPLETED IS IN ACCORDANCE WITH THE PLAN AND SPECIFICATIONS. ANY CHANGES TO THE PLANS AND SPECIFICATIONS ARE SO NOTED.		I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.		<table><tr><th colspan="2">SURVEY</th><th colspan="2">DESIGN</th></tr><tr><td>Surveyed</td><td>Date</td><td>Designed</td><td>Date</td></tr><tr><td>GPS, RTJ</td><td>11/2/15</td><td>RTJ</td><td>1/16</td></tr><tr><td>Drawn</td><td>Date</td><td>Drawn</td><td>Date</td></tr><tr><td>GPS</td><td>11/4/15</td><td>GPS</td><td>2/16</td></tr><tr><td>Checked</td><td>Date</td><td>Checked</td><td>Date</td></tr><tr><td></td><td></td><td>RTJ</td><td>2/16/16</td></tr></table>		SURVEY		DESIGN		Surveyed	Date	Designed	Date	GPS, RTJ	11/2/15	RTJ	1/16	Drawn	Date	Drawn	Date	GPS	11/4/15	GPS	2/16	Checked	Date	Checked	Date			RTJ	2/16/16	SOUTH CENTRAL TECHNICAL SERVICE AREA 1160 S. VICTORY DRIVE MANKATO, MINN. (507) 345-1051		LAKE VOLNEY ESTATES POND REPAIRS		Sec. 36	T. 111 N.	R. 24 W.
SURVEY		DESIGN																																						
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Checked	Date	Checked	Date																																					
		RTJ	2/16/16																																					
SIGNATURE: _____		DATE: _____		PRINT NAME: RYAN T. JONES		SIGNATURE: <i>Ryan T. Jones</i>		DATE: 2-11-16		LICENSE # 44622		County: LE SUEUR																												
										Township: LEXINGTON		Near: LE CENTER																												
												SHEET 1 of 5																												

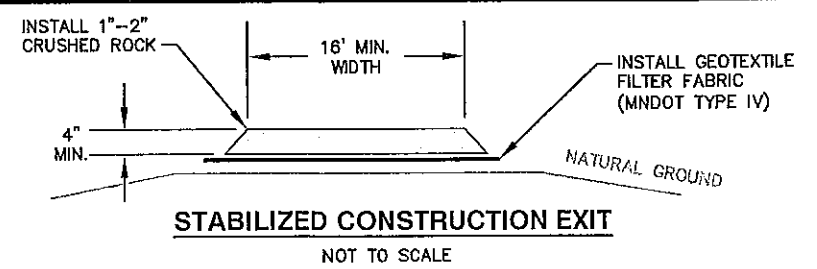


- LEGEND**
- FIELD EDGE
 - - - - - TILE, EXISTING
 - - - - - CONTOUR, EXISTING
 - - - - - CULVERT, EXISTING
 - ~ ~ ~ ~ ~ TREE LINE

- EROSION CONTROL NOTES:**
1. INSTALL A STABILIZED CONSTRUCTION EXIT WHERE VEHICLE TRAFFIC WILL ACCESS PUBLIC ROADWAYS. SEE DETAIL THIS SHEET.
 2. INSTALL BIOROLLS AT THE LOCATIONS SHOWN PRIOR TO THE START OF EARTH-MOVING CONSTRUCTION ACTIVITIES. ADD ADDITIONAL BIOROLLS AS NEEDED TO PREVENT MIGRATION OF SEDIMENT FROM THE SITE.
 3. PROTECT EXISTING POND OUTLET STRUCTURES, CULVERTS AND DRAIN TILE PIPING FROM DAMAGE.

- CLEARING AND GRUBBING NOTES:**
1. CLEAR AND GRUB ALL TREES GROWING WITHIN THE PONDS, AND WITHIN THE WORK AREA WHERE EMBANKMENTS WILL BE CONSTRUCTED.
 2. TREE AND ROOT MATERIAL SHALL BE DISPOSED OFF-SITE IN ACCORDANCE WITH ALL APPLICABLE REGULATIONS.

- SEDIMENT REMOVAL NOTES:**
1. REMOVE ACCUMULATED SEDIMENT FROM BOTH STORMWATER PONDS (AN AVERAGE OF 1 FT DEPTH). SEDIMENT MAY BE SPREAD IN THE NEIGHBORING FIELD OR USED TO CONSTRUCT THE BACK-SLOPE OF THE FARMABLE EMBANKMENT SECTION.
 2. TO MINIMIZE THE CHANCE OF DISCHARGING TURBID WATER, THE WATER LEVEL IN PONDS SHALL BE AT LEAST 1 FOOT BELOW THE OUTLET ELEVATION BEFORE SEDIMENT REMOVAL BEGINS. IT MAY BE NECESSARY TO PUMP WATER.



- NOTES:**
1. PROVIDE LENGTH SUFFICIENT TO PREVENT TRACKING ONTO PUBLIC ROADWAYS.
 2. REMOVE SEDIMENT FROM EXIT AND/OR PLACE ADDITIONAL GRAVEL AS NECESSARY TO PREVENT TRACKING.

I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.

PRINT NAME: RYAN T. JONES

SIGNATURE: *Ryan T. Jones*

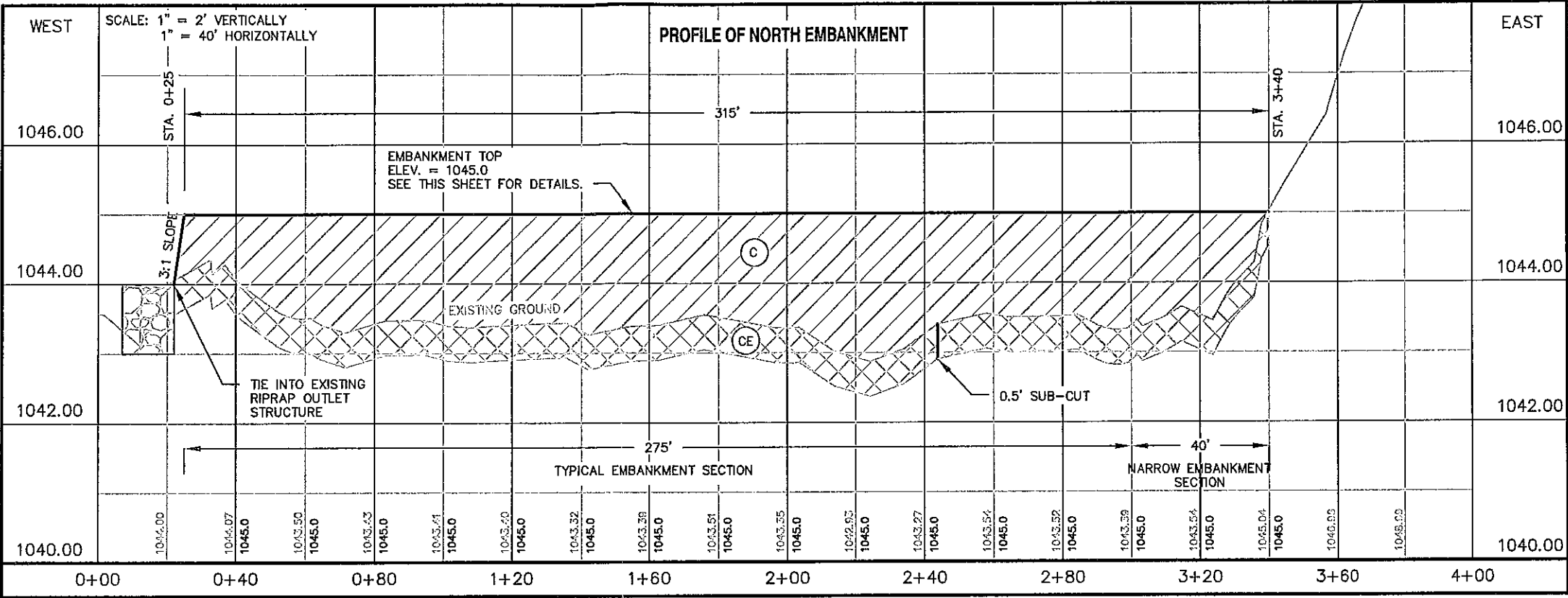
DATE: 8-11-16 LICENSE # 44622

**SOUTH CENTRAL
TECHNICAL SERVICE AREA**
1160 S. VICTORY DRIVE
MANKATO, MINN.
(507) 345-1051

**LAKE VOLNEY ESTATES
POND REPAIRS**

EROSION CONTROL AND REMOVALS	SHEET 2 of 5
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NORTH POND EMBANKMENT DETAILS

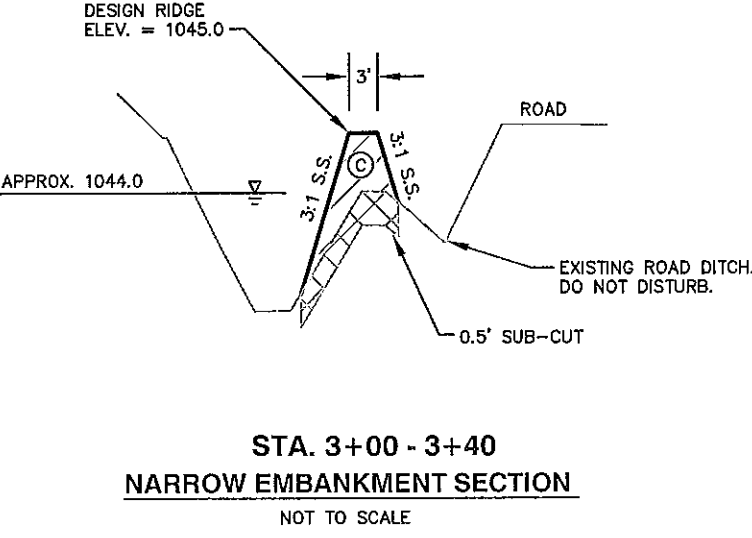
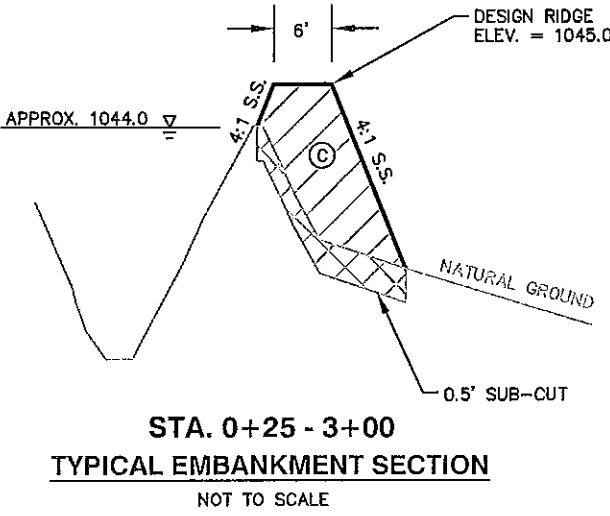


CONSTRUCTION NOTES:

CE COMMON EXCAVATION
BORROW AREA
FILL MATERIAL DEEMED SUITABLE BY ENGINEER/TECHNICIAN FOR EMBANKMENT CONSTRUCTION CAN BE BORROWED FROM A NEARBY RIDGE. EXCAVATION FOR EARTHFILL MATERIAL SHALL NOT CREATE UNSUITABLE BANKS OR GRADES FOR FARMING PRACTICES. BORROW AREAS SHALL BE APPROVED BY THE LANDOWNER.

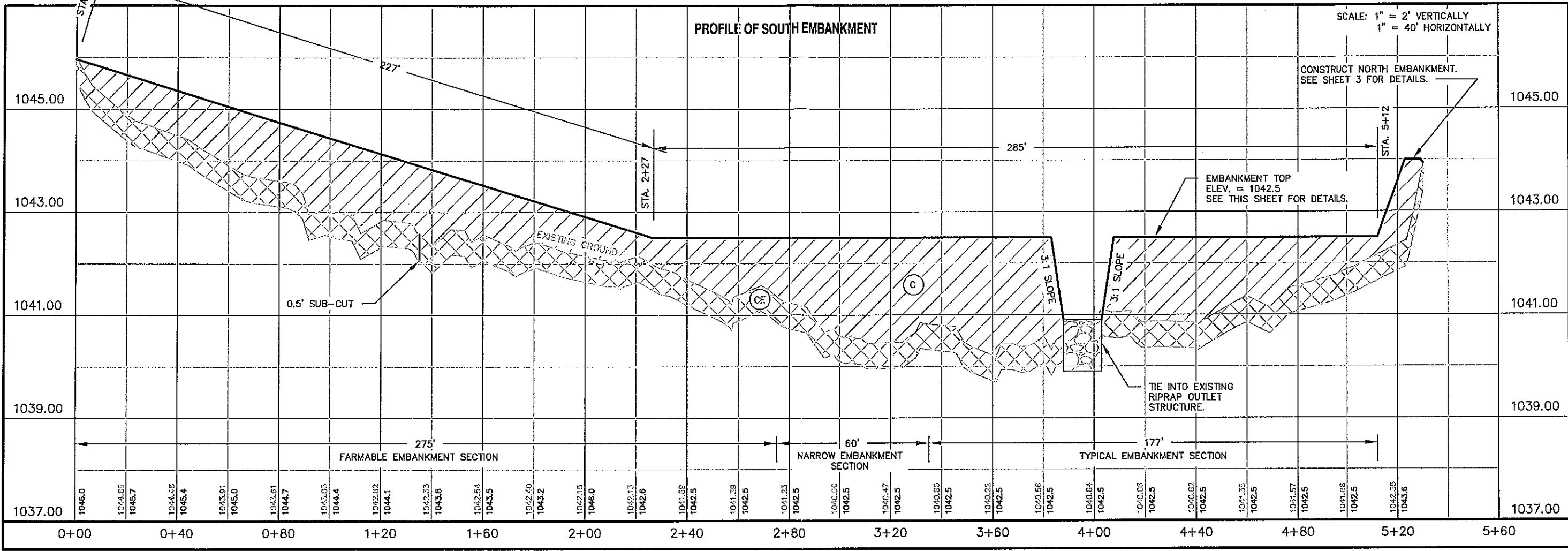
C CLASS 'C' EARTHFILL COMPACTION
THE MAXIMUM THICKNESS OF A LAYER OF FILL BEFORE COMPACTION SHALL BE:
1. 9 INCHES IF COMPACTED WITH 3 PASSES OF A 200 psi TAMPING ROLLER, OR
2. 6 INCHES IF COMPACTED WITH A RUBBER TIRE HAULING AND SPREADING EQUIPMENT "LOADED", OR
3. 4 INCHES IF COMPACTED USING A MANUALLY DIRECTED POWER TAMPER.

WHEN COMPACTING WITH RUBBER TIRE HAULING EQUIPMENT, EVERY POINT ON THE SURFACE SHALL BE TRAVERSED BY AT LEAST ONE TREAD TRACK.
COMPACTING EQUIPMENT SHALL TRAVEL IN A DIRECTION PARALLEL TO THE AXIS OF THE EARTHFILL.
EARTHFILL PLACED WITHIN 2 FEET OF A STRUCTURE OR CONDUITS SHALL BE COMPACTED BY HAND TAMPING OR USE OF A MANUALLY DIRECTED POWER TAMPER.



I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA. PRINT NAME: RYAN T. JONES SIGNATURE: <i>Ryan T. Jones</i> DATE: 8-11-16 LICENSE # 44622	SOUTH CENTRAL TECHNICAL SERVICE AREA 1160 S. VICTORY DRIVE MANKATO, MINN. (507) 345-1051	LAKE VOLNEY ESTATES POND REPAIRS	
		NORTH EMBANKMENT DETAILS	
		SHEET 4 of 5	

SOUTH EMBANKMENT DETAILS



CONSTRUCTION NOTES:

COMMON EXCAVATION

BORROW AREA

FILL MATERIAL DEEMED SUITABLE BY ENGINEER/TECHNICIAN FOR EMBANKMENT CONSTRUCTION CAN BE BORROWED FROM A NEARBY RIDGE. EXCAVATION FOR EARTHFILL MATERIAL SHALL NOT CREATE UNSUITABLE BANKS OR GRADES FOR FARMING PRACTICES. BORROW AREAS SHALL BE APPROVED BY THE LANDOWNER.

CLASS 'C' EARTHFILL COMPACTION

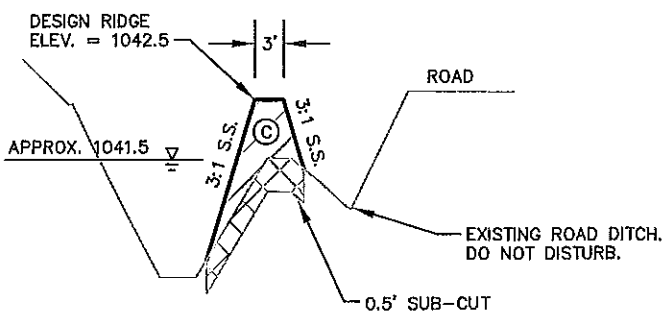
THE MAXIMUM THICKNESS OF A LAYER OF FILL BEFORE COMPACTION SHALL BE:

- 9 INCHES IF COMPACTED WITH 3 PASSES OF A 200 psi TAMPING ROLLER, OR
- 6 INCHES IF COMPACTED WITH A RUBBER TIRE HAULING AND SPREADING EQUIPMENT "LOADED", OR
- 4 INCHES IF COMPACTED USING A MANUALLY DIRECTED POWER TAMPER.

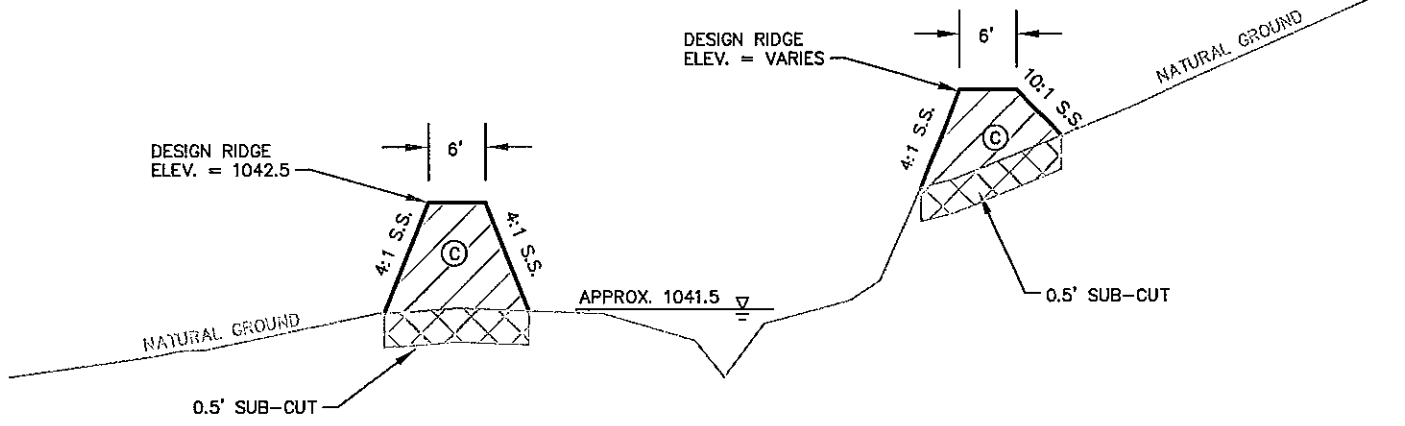
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STA. 2+75 - 3+35
NARROW EMBANKMENT SECTION
NOT TO SCALE



STA. 3+35 - 5+12
TYPICAL EMBANKMENT SECTION
NOT TO SCALE

STA. 0+00 - 2+75
FARMABLE EMBANKMENT SECTION
NOT TO SCALE

<p>I HEREBY CERTIFY THAT THIS PLAN WAS PREPARED BY ME OR UNDER MY DIRECT SUPERVISION AND THAT I AM A DULY LICENSED PROFESSIONAL ENGINEER UNDER THE LAWS OF THE STATE OF MINNESOTA.</p> <p>PRINT NAME: RYAN T. JONES</p> <p>SIGNATURE: <i>Ryan T. Jones</i></p> <p>DATE: 8-11-16 LICENSE # 44622</p>	<p>SOUTH CENTRAL TECHNICAL SERVICE AREA</p> <p>1160 S. VICTORY DRIVE MANKATO, MINN. (507) 345-1051</p>	<p>LAKE VOLNEY ESTATES</p> <p>POND REPAIRS</p> <p>SOUTH EMBANKMENT DETAILS SHEET 5 of 5</p>
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