

AGENDA
North Oaks Planning Commission Meeting
Community Meeting Room – 100 Village Center Drive, Suite 150
North Oaks, MN 55127
Thursday, May 30, 2018 at 7 PM

Call to Order

Roll Call

Approval of Agenda

Approval of the April 25, 2019 Regular Meeting Minutes

Approval of the April 10, 2019 Workshop Minutes

Consider Variance 19-03 – ISTS - 20 feet into the required 30-foot Setback –
1 Wishbone Lane

Consider Variance 19-04 – ISTS – Two Type IV ISTS Systems rather than Two
Standard ISTS Systems – 98 West Pleasant Lake Road

2040 Comprehensive Plan Update

Next Planning Commission meeting is Thursday, June 27, 2019

The Planning Commission Workshop was called to order at 7:00 p.m. by Chair Katy Ross, at the Community Meeting Room, 100 Village Center Drive, Suite 150, City of North Oaks, Minnesota.

Present were Chair Ross, Commissioners Mark Azman, Stig Hauge, Kara Ries, Nancy Reid, Sara Shah and Joyce Yoshimura-Rank. City Administrator Mike Robertson, City Planner Bob Kirmis, City Engineer Mike Kuno, Recording Secretary Deb Breen and CTV videographers Pat Cook and Maureen Anderson.

Commissioner Ries shared the CTV analytics which indicate the City of North Oaks is 2nd in the metro area of viewing public meetings from home, a testament to a strong involved community.

Approval of Agenda

Chair Ross moved to shift the Public Hearing for Wilkinson to after the Nord parcel discussion. Commissioner Ries motioned to approve revised agenda, Commissioner Shah seconded. Agenda was unanimously approved.

Approval of Minutes

Approval of the March 28, 2019 minutes: Commissioner Reid motioned to approve, Commissioner Shah seconded, all in favor.

Approval of March 13, 2019 workshop minutes: after a small correction in Spelling on the March 13th minutes, Commissioner Ries motioned to approve, Commissioner Reid seconded, all in favor.

Approval of March 28, 2019 workshop minutes: Commissioner Reid motioned to approve, Commissioner Yoshimura-Rank seconded, all in favor.

Approval of April 3rd, 2019 workshop minutes: Commissioner Ries motioned to approve, Commissioner Shah seconded, all in favor.

Preliminary Subdivision – North Oaks Company - Nord Parcel

City Planner Kirmis reviewed the staff memo which summarized the findings to questions the Planning Commission had asked. The findings include:

Sherwood Road Access: He reviewed where access could be provided along Sherwood Road. The County does not expect any conflicts with having an access off of Sherwood and emergency service indicated that response time would be improved. The impact to wetlands is unknown if the road were to be based off Sherwood.

County Compost site: Administrator Robertson has spoken to compost site supervisor and was told that the lights are supposed to be off after hours and they will check into it further.

Zoning Map Update: The process to revise the zoning map will begin later this summer. The Planning Commission will be the first to review the change, Kirmis believes it would require approval of NOHOA as well as the City Council.

Recreation zoning: The City Attorney has researched and confirms that the zoning designations in the PUD supersede the zoning ordinance in any conflict and therefore the Nord parcel is zoned RSM.

Drainage Issues: City Engineer Kuno indicated there are 3 designated stormwater ponds in Nord area plan that would mitigate the stormwater requirement. The Rapp Farm development has its own stormwater ponds which were built to handle their stormwater.

Site Area: Kuno spoke to the discrepancy of 51 acres in the EAW and 55 acres in the current Nord application. There are 2 lots that are about 2 acres each that are not part of the main parcel and that makes up the difference. The 4-acre difference runs along what appears to be a trail in former maps. Commissioner Ries said the parcel identified as V-284 is now part of the Nord parcel. Parcel B-292 is also part of the proposed Nord subdivision.

North Oaks Company (NOC) Vice-President Gary Eagles said that when Mari Hill Harpur acquired the property from her father, parcels B-292 and V-284 existed in the North Oaks Company name, not the farm name like the other Nord parcels. They were not part of the original Nord subject project. NOC is requesting to replat V-284 and B-292 as part of the current Nord application.

Staff thinks that parcel V-284 was intended to be a trail. Gary Eagles stated that there is not an easement along V-284. NOC has agreed to work with NOHOA to set up a trail to serve the Nord parcel. Commissioner Ries referenced Article 13 of the 1999 PDA agreement which states the applicant is obligated to construct a trail and work with NOHOA on this.

Trails: The City Attorney stated that in his review of language in the East Oaks PDA, it is his opinion is that the 880 acres of trails have been provided already with easements granted to NOHOA. Commissioner Ries has asked Kirmis to follow up with Attorney Magnuson for specific citation. Robertson said that circumstantial evidence and the shape of the parcel suggest that this parcel was meant to be a trail leading into the recreation area.

Cul-de-sac Diameter: Kuno stated it appeared there would be no impact to wetland impact if the cul-de-sac diameter were increased to 100 feet.

Wetland Impact: Kuno said that he asked VLAWMO if they could provide overall wetland impact for East Oaks. They said they did not keep that information. Administrator Robertson confirmed that the City doesn't track it either. He reviewed a few past developments in East Oaks and found no information in the files.

North Deep Lake Road Flooding – Kuno indicated that this was a localized situation. Culverts were installed at an incorrect elevation and not maintained. That has been corrected by replacing the culverts at a higher elevation with regular maintenance.

Crime History – Information from Officer Burrell was that there is not significant difference between crime in internal vs. external access. Commissioner Shah asked that data from Ramsey County Sheriff's office be analyzed. Robertson stated the data comparison could be tricky between streets with a small amount of homes vs. 1,200 in the internal area. He will talk to the Sheriff's Office about it.

Remaining Dwelling Numbers – This topic was anticipated to be addressed at the City Council meeting but that did not occur. Chair Ross stated there would be further opportunity to discuss since voting on the comp plan would not be taking place at the current meeting. Commissioner Hauge stated there are only a few differences, with Ries and others all coming in right about 162 units left to be built out, after commercial. Hauge also indicated since all agree that we are not maxed out, he did not feel that this topic impacted these 2 applications. The Decennial review with the North Oaks Company is being scheduled by City staff.

Additional Commissioner Comments: Commissioner Ries pointed to additional language in section F in the 1999 agreement regarding the allowance to adjust trail based on environment. She thought that might be why the easement wasn't officially granted yet, because the parcel hadn't been platted. Commissioner Azman read a letter from NOHOA Executive Director Griffin stating NOHOA will accept open space, roads and trails only if they are consistent with the 1999 East Oaks agreement. This is the official response from NOHOA on the trail topic.

Commissioner Hauge asked Commissioner Azman whether he thought the intent of the PUD was for roads to come from perimeter, not internally. Commissioner Azman said road access and lack of a firm trail are still concerns from his perspective. Commissioner Hauge said that it seems the entire problem could be solved, or at least remediated, if the application had remained true to the original agreement. Commissioner Reid indicated that the information put forth now seems much clearer than in the beginning.

Planner Kirmis reviewed the options for Approval or Denial:

Commissioners discussed importance of sticking to PUD and PDA agreements while reviewing all applications. Commissioner Ries asked that staff cite the specific sections from the PDA and EAW. Commissioner Shah asked the lawyers on the Planning Commission if they felt the findings for denial were sufficient and that the city is safe from legal issues if they are adopted. Commissioner Reid stated that the City Attorney approved the language for denial and that therefore she thought it was adequate.

Motion was made by Commissioner Reid to Deny the Nord Parcel preliminary application of subdivision by the North Oaks Company based on the following findings of fact:

1. **The subdivision's proposed access location and street layout is inconsistent with that provided in the EAW which illustrates a cul-de-sac access from the west via Sherwood Road.**
2. **The subdivision's proposed access location and street layout is inconsistent with the Conceptual Street and Access Plan included in the 1999 PDA**

3. The trail plan included in the 1999 PDA requires a well-defined trail within the subject site. Such a trail is not included in the submitted preliminary subdivision plan.

Motion seconded by Commissioner Ries. All in favor of denial, with Ross abstaining as City Council liaison. The application was denied.

Public Hearing – Preliminary Subdivision – North Oaks Company Wilkinson South Villa Homes

City Planner Kirmis reviewed the preliminary subdivision application which is located south of Osprey court and west of Centerville Road. The application consists of 36 acres with 4 villa lots which average 1,900 square feet in size. The majority of the site is dedicated to permanent open space. The Comp Plan calls for mixed residential use, including detached single homes and townhomes. The designated RMH zoning allows for the proposed villas. This is subject to the shoreland overlay district of Wilkinson Lake and all lots meet the shoreland requirements. It is site F within the East Oaks PUD, and calls for 10 single family units with potential increase to 13. The PUD does not impose any minimum width requirement, but imposes a 20% max floor area ratio. The subdivision doesn't include parkland as the park requirements were satisfied as part of previous approvals. The Comp Plan states that these lots must have a connected trail plan accepted by NOHOA. Building architecture will be of a similar design and quality to those on Osprey Court and will go through the NOHOA ASC process.

City staff recommends that applicant provide information as to what would happen on the south end of the property as a condition before final subdivision. These conditions would not prevent approval, they're just required before final subdivision approval. Engineer Kuno spoke to the hammerhead turnaround proposed in lieu of a cul-de-sac. He proposed as condition that NOC confirm that it meets fire safety, snow removal and school transportation guidelines. The remainder of the noted conditions are standard engineering conditions. From a staff perspective, the application is consistent with the planned unit subdivision. Exhibit E outlines conditions for either approval or denial.

Commissioner Feedback: Commissioner Ries said the preliminary plan shows this as a gravel road. Administrator Robertson clarified that gravel roads are now not permitted by ordinance. Commissioner Ries reviewed Map of PUD B2 which she believes shows a separate entrance for this area. Commissioner Azman noted that Map B2 has been updated in the 7th amendment and shows the street carrying through from existing Wilkinson development to the north.

Public Hearing was opened at 9:20 p.m.

Tom Watson, 45 East Pleasant Lake Road. He does not recall a road connection between site E and Site F in original plan. He wonders if they connect them, then how they are going to do unit counts in Table 1, appendix 1 as there is not a measure to combine the two.

Bill McNeill, 7 Sunset Place. For the end of the road, he would like to see a cul-de-sac instead of a hammerhead for access for snow plows and ease of maintenance. From his experience as part of NOHOA road committee, he suggested this would be helpful for Mel's

Service plowing and recommends a 100-foot cul-de-sac if possible. There are pros and cons of hammerhead vs. cul-de-sac. Cul-de-sac is more road surface to plow vs. a smaller road. He wondered if the holding pond could be moved south to provide more room for a cul-de-sac. Engineer Kuno thought they may need to remove a lot in order to do a cul-de-sac.

North Oaks Company Vice-President Gary Eagles stated that the maps were concept drawings back in 1999 and were not meant to be specific. He mentioned North Oaks Company was part of the wetland banking program that was established in the early 1990's.

With no further Comment Chair Ross closed public hearing 9:33 p.m.

Commissioner Azman said the only issue is the turn-around for him. Commissioner Ries would like to see how the southern part of the land is going to be used. Commissioner Hauge sees the proposed 4 units as a natural extension of the existing villas. North Oaks Company indicated that the Summit and Pines both have hammerheads, but they are not quite the same and very difficult to maneuver around. Commissioner Ries doesn't believe it the proposed extension was contemplated in 1999 and has concerns whether it was planned for in East Oaks EAW.

Mark Houge, President of NOC confirmed in the proposed application the access would terminate with the 4 lots. Other proposed lots further south would access off of Centerville Road or from the Hill farm lot. They are open to looking at the cul-de-sac option if necessary. Hauge mentioned it is an unofficial 55+ community so busing may not be a huge issue. NOC confirmed they have met with residents on Osprey Court as recently as November's annual meeting, and they are aware that Osprey Court always planned to be extended. Houge stated the connection to the trail off Osprey Court is accessed by walking down the street just as residents on Osprey currently do to reach the trail

Engineer Kuno stated the roadway width is standard to others in North Oaks at 24' wide. They did ask the applicant to check to ensure fire trucks can access it. It may need to be less than a 100' cul-de-sac given the wetlands. NOC confirmed it was a conscious decision to preserve the land to the south.

Commissioner Azman doesn't see the hammerhead as a big issue. Commissioner Ries is concerned about hammerhead and possible safety issues with maintenance and garbage trucks backing up. Commissioners Hauge and Azman feel the subdivision seems to be in line with agreements. Commissioners Shah and Ries have concerns with the hammerhead end. Commissioner Reid asked if they can recommend approval based on the condition that there would be no access from Wilkinson to new single family lots to the south. Kirmis stated that he does not believe they could connect to the south since they are separated by a large wetland.

Commissioner Azman referenced language in the East Oaks PDA that development can be done in a phased approach and thought that applied to this proposal. Other commissioners mentioned this verbiage could also be referencing phases by site, not necessarily phases

within a site. Commissioners Ries and Hauge requested to take out Item #37 about making any approved subdivision part of the East Oaks PDA. Kirmis said the condition was to try and memorialize any approvals and that he would look for another way to do that. Chair Ross, Commissioners Ries and Reid believe that having the NOC come back to City Council with answers to these concerns would be not fulfilling the Commission's role to fully assess application.

Commissioner Azman motioned to approve the Wilkinson application with 39 conditions, adding the cul-de-sac option and removing condition #37.

Commissioner Hauge seconded. Commissioners Shah, Ries, Reid, and Yoshimura-Rank opposed. Ross abstained. Motion failed 2-4.

Commissioner Ries motioned to deny the Wilkinson Application based on recommended findings of fact:

1) As a result of the withdrawal of the East Oaks concept plan, a conceptual subdivision layout for the southern one-half of the subject site has not been provided. Approval of the preliminary subdivision prior to the receipt and review of such concept plan for the remainder of Site F is considered premature.

2) Comments have not been received from the local fire department of the proposed "hammerhead" turn around. Approval of the preliminary subdivision prior to Fire Department approval of the proposed "hammerhead" turn around design is considered premature.

3) The subdivision's proposed access location and street layout is inconsistent with the Conceptual Street and Access Plan included in the 1999 PDA.

Commissioner Yoshimura-Rank seconded. In favor to Deny the application were Commissioners Ries, Shah, Reid and Yoshimura-Rank. Commissioners Hauge and Azman opposed, and Ross abstained. Application was Denied 4-2.

2040 Comprehensive Plan Update

Chair Ross suggested the Commission postpone its review of the final Comp plan to the May meeting, with the plan to be submitted to Council in May. Commissioners are asked to closely review and submit any comments to Gretchen prior to next meeting.

Chair Ross stated the next Planning Commission meeting will be held May 30, 2019 at 7:00 p.m.

Adjournment:

Commissioner Hauge motioned to adjourn, Commissioner Yoshimura seconded, and all unanimously approved. Meeting adjourned at 10:42 p.m.

The Planning Commission Workshop was called to order at 5:10 p.m. by Chair Katy Ross, at the Community Meeting Room, 100 Village Center Drive, Suite 150, City of North Oaks, Minnesota.

Present were Chair Ross, Commissioners Kara Reis, Mark Azman, Sara Shah, Stig Hauge, and Nancy Reid. City Administrator Mike Robertson, City Engineer Mike Kuno, City Planner Bob Kirmis, City Attorney Dave Magnuson, Recording Secretary Deb Breen and videographer Pat Cook. Commissioner Joyce Yoshimura-Rank was absent.

Approval of Agenda

Chair Ross said that the purpose of workshop is designed to allow City Staff to present information and talk through questions and issues brought up in prior Planning Commission meetings and no public comment is allowed.

Commissioner Reid motioned to approve agenda, Commissioner Ries seconded. Agenda was unanimously approved.

Review of Proposed Nord Parcel Development Information

Administrator Robertson introduced City Attorney Magnuson, City Planner Kirmis, City Engineer Mike Kuno and Kristin Mroz from Minnesota Environment Quality Board (EQB). Administrator Robertson reviewed the staff memo which contained information on a variety of topics.

Road Connection to Sherwood Road

Administrator Robertson noted that Ramsey County would allow a road connection to Sherwood Road as long as it met County standards. Engineer Kuno discussed how the North Oaks Company should have adequate room to put in a road. Commissioner Reid asked how much setback from the right-angle corner is needed. Engineer Kuno stated that the preferred area is on the North site of the property. From the South side from the corner just needs to meet a 40-mph zone. Chair Ross asked to have a map of this identified area for a road connection at the next meeting.

Administrator Robertson said the Ramsey County Park director stated that they have no immediate plans for the land to the north. The County will be looking at it in another few years and the City of North Oaks asked to be put on any task force discussing this. Commissioner Shah asked if there had been any discussion about lights at the organic waste site on Sherwood as they are brightly shining in the direction of North Oaks at night. Administrator Robertson said it was the first that he has heard it raised as a concerned and he would check into it.

Recreational Zoning

Commissioner Ries said part of the Nord parcel appears to be zoned recreation and asked how this would affect the proposed development. Attorney Magnuson said he would look into this. Engineer Kuno said they would update their maps to reflect any changes.

Commissioner Azman referred to the 1999 PDA Exhibit B1 on future land use, and asked for clarification on those areas designated as mixed use and whether that creates an

internal conflict between PDA and PUD or if it is consistent in the zoning. Attorney Magnuson stated that the PDA agreement states that it supersedes the Zoning Ordinance.

Commissioner Ries asked Robertson to discuss the subdivision process. He noted that if a preliminary subdivision is approved the applicant will typically start working on the site at their own risk and if changes are needed they will tweak their final subdivision plan and return to the city for approval.

Trail

Administrator Robertson suggested that it looks like a separate piece of land was left to create a trail, possibly without anyone actually looking at the area to know that it was wetlands. That piece of land connects to NOHOA open space. The corner of the Nord property which is guided R-recreational would give access from the NOHOA open space to Sherwood Road. This would allow people to walk from Sherwood Road through the property to access the trails on the conservation land.

Attorney Magnuson reviewed the memo on the trail issue. He found that the PDA states that state law gives some rights, but cities can't make changes to a PDA until at least 1 year after approval and 2 years after approval of the final plat. In regards to the dedication of open space and trail space - the PDA states 885 acres of open space and trail space granted to NOHOA are to act as the official open space. This status allows the City to extract parks and trails. The acceptance of parks and trails has been satisfied. The PDA can be amended in agreement between City and North Oaks Company (NOC).

Commissioner Ries stated Article 13 of 1999 PDA references trail maps, and then there is an attachment Trail Map dated October 1999, describing exactly what was stated. She believes the Map indicates a line as a trail, so the City can request a trail put in place and then turn it over to NOHOA to maintain. She feels that since the 1999 PDA showed an access to Sherwood Road that the line might have been a seasonal trail to connect to rest of North Oaks.

Commissioner Azman asked if an easement had officially been granted to NOHOA as part of history. Robertson said he talked to NOHOA Exec. Director Griffin and she stated the trail is NOHOA's responsibility and they would handle discussions related to this. Commissioner Shah and Ries both stated their understanding from PUD that City can require trail designation. Magnuson stated that they couldn't do that because the trails have been designated to NOHOA in perpetuity and agreed upon in the PDA.

The Planning Commission all agreed that it is within their right to require a map within the plan, recognizing that there could some modification with the wetland considerations. PC asks that the City request have all options on the table.

60 Day Rule:

Commissioner Shah asked Attorney Magnuson to explain the 60-day rule. He indicated that there are two statutes to consider: 1) A 60-day timeline is required for making decisions such as zoning or variances. It can be extended to 120 days with a City notice. This is

designed to keep cities from just sitting on an application. This statute also says the City can notify an applicant if there are items missing from the application in which case the 60-day timeline does not yet kick in. 2) The statute governing subdivisions states there is a 120-day clock for a decision. If it's not approved in that timeframe it is automatically deemed to be approved. There is question as to whether this application falls into the subdivision or zoning regulation. Magnuson recommends to follow 60-day rule, then staff has opportunity to extend the application decision if necessary. Whereas the only way to extend 120-day subdivision rule is by agreement with the developer.

EAW Process:

Kristin Mroz from the State Environmental Quality Board (EQB) spoke on EAW questions. She said the EQB does not review EAW's but are a resource for citizens, cities and developers for understanding the process. Commissioner Ries asked her to clarify the EAW process. She said an EAW may be done for 3 separate reasons 1) mandatory within 36 categories to be reviewed 2) discretionary, a local government can request based on concerns about a proposed project 3) Voluntary, initiated by the developer. If doing an EAW, steps include: The project proposer first completes the worksheet. Other agencies will review the information completed. City can also supplement with any additional information and analysis that they want included. The City would then own the document and present to the public. There is a 30 days public comment period, then a finding of fact and record of decisions.

The East Oaks EAW was a mandatory requirement at the time. Kristin Mroz referred to EQB 44.10.1000 , part 5 talks about when a new one is required. It depends on whether a project has changed significantly – this is up to City to determine. There is no expiration date on an EAW. Commissioner Azman asked if there is a supplemental EAW process in which they could just add onto the existing one. She stated that there is not a supplemental process, but can internally look at areas they have concerns on. This would not go through the official EQB board for review though.

Wetlands

Kristin Mroz stated that both phased and cumulative wetland impacts were discussed in the current EAW. City Engineer Kuno said from an engineering perspective he has reviewed the proposed wetland loss on Nord. He stated that it appears that the developer tried to minimize the wetland impact when designing the road. 0.23 acres of wetland would be lost. VLAMO has told him that there are many projects across the metro area in which there are greater losses than this. If this moves forward North Oaks Company will need to get approval from VLAMO, DNR, Army Corp. and BOWSER. VLAWMO told him that they have been working with North Oaks Company for years and that they have always been easy to work with and have done what they'd been asked to do.

Commissioner Shah asked if they have to widen cul-de-sac to increase diameter to 100 feet allow room for buses to turn around would this impact any wetlands. Kuno confirmed this had to be done but he hadn't look to see what impact it would have. Commissioners asked him to check into this.

Commissioner Azman inquired as to how much land is needed to build homes on each parcel since part of some of the lots have wetlands on them. Kuno said there is adequate land on each lot. When someone asked about a particular lot he said there was 1.6 acres of buildable land on the lot.

Commissioner Shah asked Kuno about drainage from Rapp Farm and past culvert issues on North Deep Lake Road. Kuno said he would look into these matters.

Commissioner Shah said that exhibit C shows 54 acres for Nord but elsewhere it says 50 acres. Robertson said staff would check on the discrepancy.

ROAD CONNECTION: Staff recommended that the road access change to North Deep Lake Road would require a traffic study based on EAW rules. If the road was changed back to a Sherwood access, no traffic study would be required.

Kuno said the original EAW showed a daily increase of 10,480 with peak 1,000 vehicles per hour in entire EAW. He doesn't believe there will be a significant impact, but can't make this determination based on EAW information. Under current requirements, Kuno recommends a new traffic study be done. Depending on the result, it could require turn lanes on West Pleasant Lake Road. A traffic study requires physical onsite review for counting. 39 Lots currently exit onto West Pleasant Lake Road.

Current plan shows 9.7 trips per unit per day as the industry standard. Chair Ross asked about deliveries, etc. Kuno said these are included. There may be increase in deliveries from 20 years ago, but there may also be an increase in telecommuting, home businesses, etc. to balance that.

Public Safety:

Robertson said the Lake Johanna Fire Department indicated there would be a faster response time to this area if they had access from Sherwood Road. They would also love to extend the water line from Rapp Farm for fire suppression service. The Ramsey County undersheriff stated they don't get involved in traffic issues, unless there is a situation that is deemed unsafe, they trust the City Engineer.

Commissioner Shah asked if there was any report on crime from inside vs. outside areas of North Oaks. Robertson said Deputy Burrell had not observed any differences except break ins at construction sites. Commissioner Shah asked if there could be some statistical comparison and Robertson said he would check with the Sheriff's office.

Neighborhood Testimony:

As requested, Attorney Magnuson reviewed court cases regarding the impact of neighborhood testimony. Courts have consistently ruled that community opposition is not a legal reason to deny an application. The Planning Commission must be careful to weigh their decision based on facts and zoning, not neighborhood opposition. The emotional viewpoint of neighbors should not be basis for decision making, only factual information

brought to the table is valid. Commissioner Azman reiterated that the Planning Commission must also be fair to the applicant and fair to the facts.

Administrator Robertson summarized direction to staff:

- Work with the County to get a map of Sherwood Road to see how much space is available to meet County requirements.
- Talk to County re: lights at organics site.
- Update next City Zoning map to reflect PUD zoning.
- Come up with a condition address the portion of NORD zoned recreation.
- Determine which way drainage flows from Rapp Farm.
- Why is there a 4-acre difference between the PUD and the EAW?
- Draft something related to the trail issue that referenced state law.
- Ask NOHOA status of trail discussion.
- Possible impact to wetland acreage because of cul-de-sac increase
- Get estimate of wetland impact from prior fill at Rapp Farm development.
- What caused flooding at North Deep Lake Road?
- Talk to VLAMO re: current plan.
- Review the EQB requirements on what is considered substantial.

New Business:

Commissioner Shah asked if fellow commissioners felt that we are utilizing the information given as quickly as possible with the multitude of information coming in. She wondered if they feel like they are getting and turning around the information quickly enough. Hauge and Shah have compiled a project plan outlining the questions presented and those that have been resolved. Concerned if the City has enough staff to respond quick enough. Robertson stated that with the trifecta of the Comp Plan, concept plans and subdivision applications coming at the same time that he feels they should have geared up with additional meetings quicker. He also noted that residents are asking for all information online faster than the City can produce it.

Attorney Magnuson stated he has represented cities since 1977 and in the big picture this is 10 five acre lots on public sewer. Typically, developments that are less than 20 units are not subject to environmental review. Commissioner Ries thought there was a need for tracking document requests. There was a suggestion to hire a full time City Planner or Project Manager to handle just East Oaks Development issues.

City Planner Kirmis shared that in a typical process in cities he has worked for is an applicant comes with idea or sketch and meets with staff first to try to head off any big issues before the application is submitted and the time clock begins. He suggested that concept plans come to City staff, and then get to the Planning Commission and Council before it becomes an application. The Planning Commission said it is looking for more direction up front from City staff. Kirmis believes the incoming documents should go through the City to maintain tracking of issues, instead of to a contract City Planner. To address this issue, there is already a recommended change in the ordinance that would make a concept plan mandatory. It is on the next Council agenda.

Robertson stated that previous direction has been for him to handle as much as he could internally to save money and that has not worked in this case. If the Commission wants to change any ordinances going forward that is something that can be considered. All agreed that there is room to improve the project management process. Chair Ross stated that once the Comprehensive Plan is done, East Oaks should be more straightforward.

Commissioner Ries asked Robertson to put this issue on the next Council agenda and to ask the City of Shoreview for their Community Development Director job description.

Adjournment:

Commissioner Hauge motioned to adjourn, Commissioner Ries seconded, and all unanimously approved. Meeting adjourned at 8:26 p.m.

No. _____

**CITY OF NORTH OAKS, MINNESOTA
APPLICATION FOR CUP, VARIANCE, APPEAL, AMENDMENT, PLAN REVIEW**

Location of Property: (address) 1 Wishbone Ln, North Oaks Mn 55127

Legal Description of Property: Tract K RLS _____

Fee Owner: Michael Konobeck 5912 Prairie Ridge Drive
Name Address

Shoreview MN 55126 952-250-6487
City State Zip Contact Number/s

Signature of Fee Owner: [Signature] Date 04/27/2019

Applicant: _____
(if different from owner) Name Address

City State Zip Contact Numbers/s

Signature of Applicant: [Signature] Date 5-2-19

Type of Request: *(Please circle correct request)*

CONDITIONAL USE PERMIT (as provided for in Chapter 151.076 of Code of Ordinances)

VARIANCE Septic allowance into setback.

APPEAL

AMENDMENT

BUILDING / SITE PLAN REVIEW

OTHER

✓ Please attach fifteen (15) copies of detailed written and graphic material fully explaining the proposed request and include the reason for the request, present zoning classification and existing use of the property.

(For office use)

Application received with \$450 fee on 5/2/2019 Check# 5656 Amt# 450.00

Date for review of completeness fifteen (15) business days from initial receipt 5/23/19

* If application is deemed incomplete, written notice must be sent to the applicant by above date stating the items that need to be submitted for the application to be deemed complete.

Deadline for action sixty (60) days from initial receipt

7/2/19

Extended deadline

** City may extend the review period by up to sixty days from the end of deadline for action only if applicant is notified in writing prior to the end of the initial sixty (60) day review period. The deadline may be extended beyond sixty days with applicant's approval.

Conditional Use or Amendment request - Public Hearing date

Planning Commission action:

Approval or disapproval on _____ with conditions _____

City Council Action:

Approval or disapproval on _____ with conditions _____

Variance, Appeal, Building/Site Plan Review, Other

Action of Board of Adjustment and Appeals:

Approval or disapproval on _____

Bond Required _____

Bond Received on _____

CITY REIMBURSEMENT POLICY

In connection with your request and submittal of material to be reviewed by the City of North Oaks, please be informed that if the City incurs any additional expense in the course of this application review beyond the normal processing fee, the cost will be assessed to the applicant. As authorized in Chapter 151.083 of the Ordinance Code, an applicant will be responsible for full reimbursement of incurred costs to the City of North Oaks. (A copy of this section of the Ordinance is available upon request.)

Your initial application fee of \$450.00 covers the processing of a typical zoning action. A typical process for reviewing a zoning action may include some or all of the following: City employee help in explaining the application process, City employee receipt of completed application and proper scheduling on appropriate agenda, one legal notice for a public hearing (if applicable), written notice to abutting property owners (if applicable) generation of a staff report, presentation of the staff report to the Planning Commission and presentation of the staff report and Planning Commission recommendation to the City Council.

If the scope of your application goes beyond a typical review process, you will be asked for an additional escrow deposit. At that time, you will be advised of the additional review necessary to complete your zoning action request and the potential cost for completing said review. You will be provided written documentation for your acknowledgement that outlines the above two items.

An applicant will be allowed to remove their request at any time during said further review process. Any remaining escrow deposit that is not needed to pay incurred costs to the date of application removal will be refunded to the applicant within sixty days.

I acknowledge that I have read and fully understand the above statements.


Applicant's Signature

Date 04/27/2019

May 22, 2019
VARIANCE 19-03
Mr. Michael Konobeck
1 Wishbone Lane
North Oaks, MN 55127
RSL Zoning

Description of Request

The applicant is requesting a variance to install a subsurface sewage treatment system (SSTS), which would encroach 30 feet into the required 30-foot west property line setback up to the road easement.

The applicable regulations are as follows:

§ 151.050 RSL - RESIDENTIAL SINGLE-FAMILY LOW DENSITY DISTRICT.

(F) Setbacks.

(1) No building or structure (except fences, screening, planting strips, and landscaping in compliance with Sections 151.033 and 151.034), individual sewage treatment system, or well shall be located within thirty (30) feet of the lot lines, the nearest edge of any road easement(s), or any wetland(s), except that additions which do not exceed twenty five (25) percent of the existing building footprint area, on buildings or structures lawfully existing upon the effective date of this chapter shall be excluded from wetland setback requirements.

§ 51.02 GENERAL PROVISIONS

(5) Site Evaluation, System Design, Construction, Inspection, and Servicing

(A) At the time of subdivision, development, or redevelopment, the developer of each lot, which will not be serviced by municipal sanitary sewer, shall identify 2 sites, each 5,000 square feet in size, for the purpose of sewage treatment and dispersal. These sites, as identified by the developer, shall be protected from all future encroachment by any improvements, construction, or other activities that may result in compaction or disturbance of soil on the site, other than the installation of a sewage treatment system.

Staff Review

This is a previously established lot, which has never been developed. The lot is irregularly shaped with streets fronting approximately 66 percent of it. The area available for the installation of a sub-surface sewage treatment system is limited due to property line setbacks, the proposed structure, impervious areas, slopes, and wetlands.

The applicant previously applied for the variance which was granted in December, 2013. Since their time frame to do the work has lapsed, they have to reapply for the variance.

Based on these facts, it is the staff's opinion that the applicant has met the requirements for a variance as outlined in Section 151.078 of the code. We are in agreement with the designer,

VARIANCE 19-03

May 22, 2019

Page 2

Ashley Krause, that the proposed location of the new system appears to be the most viable location for an SSTS. This would be the minimum variance, which would alleviate the practical difficulties.

A survey showing the proposed home and septic sites is attached, along with the engineering information supplied to our Septic Inspector Brian Humpal. Since the driveway will be accessing South Deep Lake Road rather than Wishbone Lane, the address will be changed to 18 South Deep Lake Road.

Action Requested

That the Planning Commission make a recommendation to the City Council to approve or deny Variance #19-03 to encroach 30 feet into the required 30-foot west property line setback.

Motions

Motion to Approve

MOTION _____ SECOND _____

That Variance #19-03 for 1 Wishbone Lane:
be APPROVED with the following conditions:

1. Completion date by January 1, 2020.
2. System to be located per the design dated April 23, 2019 by Ashley Krause.

Motion to Deny

MOTION _____ SECOND _____

That Variance #19-03 for 1 Wishbone Lane:

be DENIED with the following findings:

- 1.
- 2.

**SITE/GRADE PLAN FOR
MIKE KONOBECK**

**ON:
TRACT K, REGISTERED LAND SURVEY NO. 233
RAMSEY COUNTY, MINNESOTA
ADDRESS: #1 WISHBONE LANE**

LEGEND (FROM ORIGINAL FIELD SURVEY DATE 11-20-2007)

- Center Iron Pipe Monument Found
- Center Iron Pipe Monument Set
- Center Spot Elevation
- Boundary 10 FT. Contour Line
- Boundary 2 FT. Contour Line
- Boundary 100 FT. Contour Line
- Boundary 200 FT. Contour Line
- Boundary 400 FT. Contour Line
- Boundary 800 FT. Contour Line
- Boundary 1600 FT. Contour Line
- Boundary 3200 FT. Contour Line
- Boundary 6400 FT. Contour Line
- Boundary 12800 FT. Contour Line
- Boundary 25600 FT. Contour Line
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25297 Llama St. N.W. Zimmerman MN 55398
763-760-4172 Cert#9575 Lic#3974
arkseptic17@gmail.com

Date: 4/23/19

Contractor/Homeowner: Mike Konobeck

Property address: #1 Wishbone Lane

City: North Oaks County: Ramsey Permitting Authority: City of North Oaks

This On-Site Sewage Treatment System is designed for a Type 1, 5 bedroom (750GPD flow) home in accordance with Minnesota Pollution Control Agency Chapter 7080 and local ordinance.

A seasonally high water table or saturated soil layer was located at 18" (mottled soil). The bottom of the rock bed must be located at least 3' above the seasonally high water table or saturated soil.

All wells are located greater than 50' away from proposed treatment system.

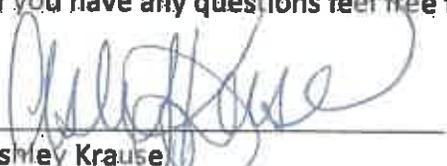
Keep all heavy equipment off of the proposed area before and after construction. The treatment area should be marked off before construction. This design is not valid and the system will need to be relocated if failure to protect the area proposed for On-Site Sewage Treatment occurs.

With proper installation and maintenance, this system should have no problems treating septic effluent efficiently. Nothing other than gray water (laundry, shower, etc.), human waste sand toilet tissue should be disposed of into the septic tank. Garbage disposals are not recommended. Smaller amounts of laundry soaps, dish soaps, cleaning agents, etc. are better for the system. Antibacterial soaps and chlorine agents may kill the bacteria needed to treat septic effluent properly. Additives are not recommended, they may cause harmful damage to your system. Recommended to pump and clean your tanks by a certified pumper every other year if you have 1 tank and every 2-3 years if you have a 2-tank system to insure proper maintenance.

**Septic tank: 2000/2(50/50)+1000gal Lift Tank: 1000gal System Type: Mound
Pump Size: 36GPM @14' of Head Rock below pipe: 6" Amount of Rock: 21 yards or 29tons
Amount of washed sand: 181 yards or 253 ton Loamy Cap: 75yards or 105 ton
Topsoil: 87yards or 122ton**

Install new 2000/2 50/50 compartment septic tank, followed by 1000gal septic tank. Install 1000gal lift tank, Pump up to 10x62.5' rock bed with 6" of rock below pipe and 1.5' of wash sand. Installer to verify. The City requires 10,000sqft of area for 2 septic sites, since it is not available within the setbacks, the owner is going to apply for a variance from the city to reduce the square footage or allow the area to encroach the 30' set-backs from property lines. In the enclosed drawing, it shows the two proposed area.

If you have any questions feel free to call me at 763-760-4172.



Ashley Krause
MPCA LIC# 3974

Mound Design

Property Owner: Mike Konobeck

Date: 4/23/19

Site Address: #1 Wishbone Lane. North Oaks

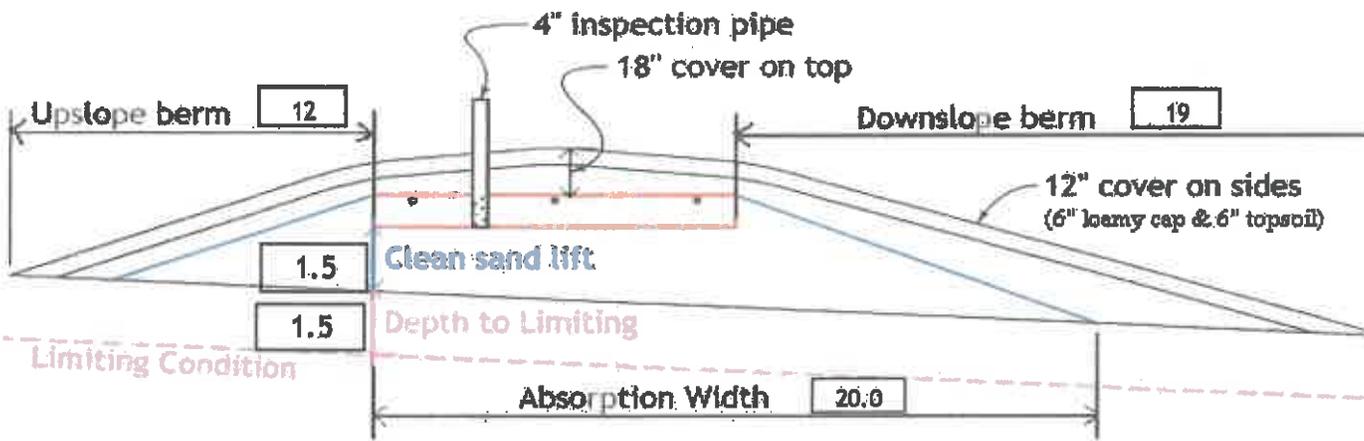
PID: _____

Comments: _____

Instructions: = enter data = adjust if desired = computer calculated - DO NOT CHANGE

- 1) 5 bedroom Type 1 Residential System
- 2) 750 GPD design flow
- 3) No Garbage disposal or pumped to septic
- 4) 1500 Gal Septic tank (code minimum) 3000 Gal Septic tank (design size / LUG req'd)
Tank options: none
- 5) 1.2 GPD/ft² mound sand loading rate contour loading rate of 12 req's a min 62.5 ft. long r
- 6) 10.0 ft rockbed width 62.5 ft rockbed length
- 7) 3.0 ft lateral spacing 3.0 ft perforation spacing (maximum of 3 for both)
end feed manifold connection
- 8) 3 laterals 60.5 feet long 21.0 perfs./ lateral 63 perfs total
(1/2 a perf means the first perf starts at the middle feed manifold)
- 9) 7/32 inch perfs at 1 feet residual head gives 0.56 gpm flow rate per perforation
for this perf size & spacing, & pipe size on line 12, max perfs/lateral = 30, line #8 must be less -->
- 10) 4.0 doses per day (4 minimum)
- 11) 188 gallons per dose (treatment volume) 2.00
- 12) 2.00 inch diameter laterals must be used to meet "4x pipe volume" requirement 2.00
- 13) 60 feet of 2.0 inch supply line leads to 10 gallons of drainback volume
(Tip: "top feed" manifold to control the drainback)
- 14) 198 gallons TOTAL pump out volume (treatment + drainback)
- 15) 6 feet vertical lift from pump to mound laterals, leads to a:
- 16) 36 GPM @ 14 feet of head, Pump requirement (note: >50gpm may require an extra 3-6' of head)
- 17) 750 gal Dose tank (code minimum) 1000 gal Dose tank (design size / LUG req'd) at 22.00
leads to a
- 18) 9.0 inch swing on Demand float, or timed dosing of 5.5 min ON (confirm pump rate with drawdo
(this delivers Average flow, =70% of Peak design flow) 9 hrs OFF test and adjust as necessary)
- 19) 12 inches from bottom of tank to "Pump OFF" float
- 20) 21 inches from bottom of tank to "Pump ON" float, or 12 inches to "Timer ON" float if time dosed
- 21) 24 inches from bottom of tank to "Hi Level" float, or 34 inches to "Hi Level" float if time dosed
- 22) 472 gallons reserve capacity (after High Level Alarm is activated)

- 23) **0.60** gpd/ft² Absorption area Soil Loading Rate, which gives a mound ratio of **2** (minimu
(this must match the soil boring log) desired mound ratio **2.0**
- 24) **4** percent site slope (0-20% range) **4** (% downslope site slope, if different than upslope)
- 25) **18** Inches, or **1.5** ft. to Redox or other limiting condition (need at least 12" to be a Type I)
Treatment zone contains **0** inches of 0% soil credit, and **0** inches of 50% soil credit. Giving
- 26) **18** inch, or **1.5** ft. Sand Lift Mound **CRITICAL FOR FUTURE CERTIFICATIONS!!!**
- 27) **20.0** ft. Total ABSORPTION width (with sand beyond rockbed as follows:)
- 28) **0.0** ft. upslope and sideslope
10.0 ft. Downslope
- Individual slope ratios give BERM widths (topsoil beyond rockbed) of:
- 29) **4:1** upslope ratio **12** ft. upslope berm
- 30) **4:1** sideslope **16** ft. sideslope berms
- 31) **4:1** downslope **19** ft. downslope berm
- 32) Overall Dimensions: **10.0** ft. wide by **62.5** ft. long Rock bed
41 ft. wide by **95** ft. long Mound footprint



Note:
For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both directions.
For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Bed*.

- 33) Rock Bed: **10.0** ft. by **62.5** ft. by **6** inches under pipe, plus 20% gives **21** yd³ or *1.4= **29** ton
- 34) Mound Sand: (note: volume is based on 3:1/4:1 slope from top of rockbed, Exchange sand for loamy cap if desired)
34.5 up + **64.1** downslope + **12.5** ends + **39.4** under rock = **181** yd³ or *1.4= **253** ton
plus 20%
- 35) Loamy Cap: **37** ft. by **91** ft. 6" deep, plus 20% gives **75** yd³ or *1.4= **105** ton
- 36) Topsoil: **41** ft. by **95** ft. 6" deep, plus 20% gives **87** yd³ or *1.4= **122** ton

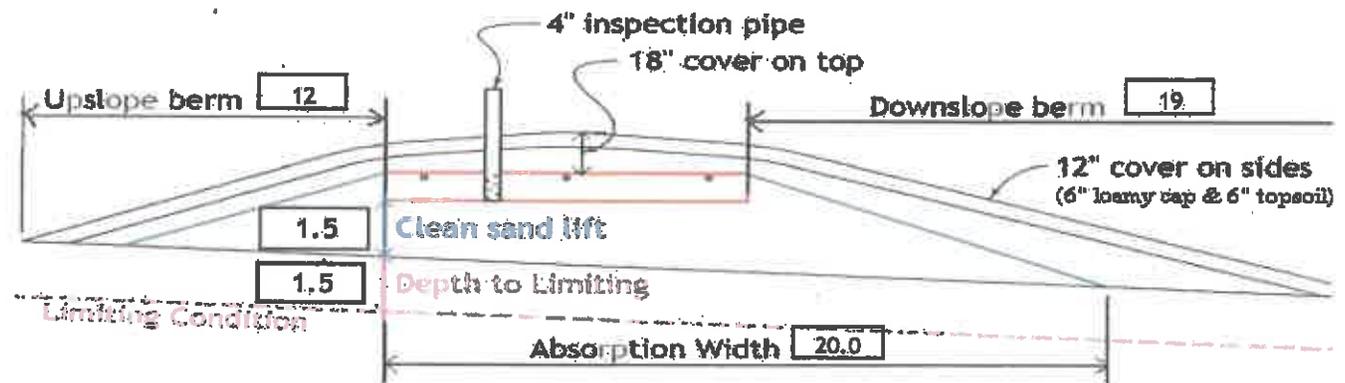
I hereby certify that I have completed this work in accordance with all applicable ordinances, rules and laws.

[Signature] *[Signature]* **#8974** **4/23/19**

Installer Summary

- gallon Septic tank (minimum) Tank options: none
- gallon Dose tank (minimum) at gpi
- GPM @ ft. of head, Pump required
- inch swing on Demand float which translates to roughly inches of float tether length
- inches from bottom of tank to "pump ON" float, or minutes ON time & hours OFF time
- inches from bottom of tank to "Hi Level Alarm" or inches to "timer ON" float
- inches to "Hi level alarm" if time dosed
- ft. of inch supply line with manifold connection
(Tip: "top feed" manifold to control drainback)
- inch, or ft. Sand Lift Mound
- ft. wide by ft. long Rock bed
- laterals inch diameter ft. long ft. lateral spacing
- inch perfs ft. perforation spacing
- Effluent filter & alarm
- clean out & valve box assemblies

- ft. Total sand ABSORPTION width (minimum)
- ft. upslope and sideslope (sand beyond rockbed, minimum)
- ft. Downslope (sand beyond rockbed, minimum)
- Specific slope ratios give BERM widths (topsoil beyond rockbed) of:
- upslope ratio ft. upslope berm
- sideslope ft. sideslope berms
- downslope ft. downslope berm



Note:
 For 0 to 1% slopes, *Absorption Width* is measured from the *Bed* equally in both direction
 For slopes >1%, *Absorption Width* is measured downhill from the upslope edge of the *Be*

Rock Bed:	<input type="text" value="21.0"/> yd ³ or *1.4=	<input type="text" value="29"/> ton	<input type="text" value="6"/> inches under pipe
Mound Sand:	<input type="text" value="181"/> yd ³ or *1.4=	<input type="text" value="253"/> ton	calculation based on 3:1/4:1 slope from top of r
Loamy Cap:	<input type="text" value="75"/> yd ³ or *1.4=	<input type="text" value="105"/> ton	<input type="text" value="6"/> deep
Topsoil:	<input type="text" value="87"/> yd ³ or *1.4=	<input type="text" value="122"/> ton	<input type="text" value="6"/> deep

INSPECTOR CHECKLIST - mound

#1 Wishbone Lane. North Oaks

- WELL setbacks:
 - 20' to pressure tested sewer line (5 psi for 15 min)
 - 50' to everything
 - 100' to dispersal area with shallow well

-
-
-
-

PROPERTY LINES setback: 10' to everything
 Road setback: platted: 10' prop line. Metes & bounds: out of road easement, or outer ditch.
 LAKE / BLUFF setback: 20' for bluff. Lakes: GD ____, RD ____, NE ____. Protected wetland ____.
 Building setbacks: 10' for everything, 20' for dispersal area.
 WATER LINE under pressure setba 10' to bed, tank & sewer line. (else sewer line > 12" below)

-
-

Sewer line & baffle connection (no 90's, 3' between 45's, slope min 1" in 8', max 2" in 8')
 (no depth req's, clean out every 100', Sch 40 pipe)

Septic tank and risers (water tight, insulated, proper depth, existing verified by pumping)
 mfg _____ 3000 gallons. none _____

-
-

Riser over outlet, riser over inlet or center, and 6"+ inspection pipe over any remaining baffles.
 No effluent filter & alarm

-
-

Dose tank risers and piping (water tight, insulated, proper depth, drainback)
 mfg _____ 1000 gallons

dose pump _____ 36 gpm 14 head VERIFY PUMP CURVE 5.5 min ON 9

-

float setting drop 9.0 inches at 22.0 gpi "DESIGNED" 5.5 inches approx float tette
 198.0 gal dose divided by _____ gpi "INSTALLED" = _____ inches float drop (field c
 LABEL pump requirements and drawdown on riser or panel

-
-
-
-
-
-
-

Cam lock reachable from grade - 30" max. J-hook weep hole. Supply line access (no hard 90's)
 2.0 inch supply pipe; Sch40, sloped 1/8"+, supported by 4" sch40 sleeve or compacted, and buried 6"+.
 splice box / control panel / electrical connections
 flow measurement: CT, ETM, time dosed, home water meter
 mound absorption area rough up
 mound rock dimensions _____ 10.0 X _____ 62.5
 Sand lift depth 18 inches. (Jar test : 2" sand leaves < 1/8" silt after 30 min)

-

Absorption Sand beyond rock 0.0 upslope 10.0 downslope

-

Bermed topsoil beyond rockbed 12 upslope 16 sideslope 19 downslope

-
-
-

cover depth of 12-18"+ VERIFY
 3 laterals (1-2' from edge of rock)
 2.00 inch pipe size (Sch40 pipe & fittings)
 3.0 ft lateral spacing

-
-

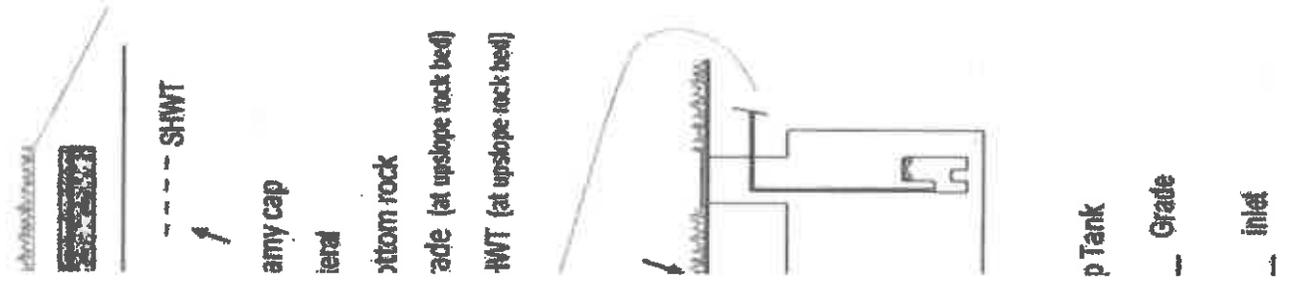
7/32 inch perforations
 3.0 ft perforation spacing

-
-

Air inlet at end of laterals, and at top feed manifold if necessary. VERIFY
 clean outs (no hard 90's)
 4" inspection pipe to bottom of rock, anchored VERIFY

-
-

Abandon existing system - if necessary _____ Re-use existing tank certification
 monitoring plan and type _____
 well abandonment form - if necessary _____



Additional Percolation Data



Test hole: #2

Location:

Starting time: 7:19 AM

Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0-5	Fine sandy loam
5-12	Fine sandy loam

** 12 in. for mounds & at-gr of absorption area for trench

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	7:19 AM	7:22 AM	12.00	10.00	1.5	NA	NA
2	7:22 AM	7:25 AM	12.00	10.75	2.4	NA	NA
3	7:25 AM	7:28 AM	12.00	10.75	2.4	37.5	No
4	7:28 AM	7:31 AM	12.00	10.75	2.4	0.0	Yes
5							

Chosen Percolation Rate for Test Hole #2 2.4 mpi

Test hole: #3

Location:

Date reading taken: 4/24/19

Elevation:

Starting time: 7:21 AM

Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0-4	Fine sandy loam
4-12	sandy loam

** 12 in. for mounds & at-gr of absorption area for trench

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	7:21 AM	7:24 AM	12.00	10.80	2.5	NA	NA
2	7:24 AM	7:27 AM	12.00	10.90	2.7	NA	NA
3	7:27 AM	7:30 AM	12.00	10.90	2.7	8.3	Yes
4	7:30 AM	7:33 AM	12.00	10.90	2.7		Yes
5							

Chosen Percolation Rate for Test Hole #3 2.7 mpi



Additional Percolation Data

UNIVER
OF MINN

Test hole: #4
Date reading taken: 4/24/19
Starting time: 7:37 AM

Location: _____
Elevation: _____
Depth**: 12 inches

rades, depth
hes and beds

Soil texture description:

** 12 in. for r
of absorption

Depth (in)	Soil Texture
0-12	find sandy loam

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates
1	7:37 AM	7:40 AM	12.00	9.00	1.0	NA
2	7:40 AM	7:43 AM	12.00	10.00	1.5	NA
3	7:43 AM	7:46 AM	12.00	10.00	1.5	33.3
4	7:46 AM	7:49 AM	12.00	10.00	1.5	
5						

Chosen Percolation Rate for Test Hole #4 1.5 mpi

Test hole: #5
Date reading taken: _____
Starting time: n/a

Location: _____
Elevation: _____
Depth**: _____ inches

rades, depth
hes and beds

Soil texture description:

** 12 in. for r
of absorption

Depth (in)	Soil Texture

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates
1						NA
2						NA
3						

Chosen Percolation Rate for Test Hole #5 _____ mpi

U of MN Onsite Sewage Treatment Program Soil Boring Log

Client/ Address: #1 <u>Wishbone Lane North Oaks</u>	Legal Description/GPS:	Date: <u>4/23/19</u>
Soil Parent Material(s): <u>Till</u> <u>Outwash</u> Lacustrine Alluvium Loss Organic Matter Bedrock (circle all that apply)		
Landscape Position: Summit <u>Shoulder</u> Back/Side Slope Foot Slope Toe Slope (circle one)		
Vegetation: <u>Woods</u>		Soil Survey Map Unit(s):
Weather conditions/Time of Day: <u>afternoon/sunny</u>		Slope (%): <u>4%</u> Slope Shape: <u>11</u>

B-1 & B-5

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Structure		
						Shape	Grade	Consistence
0-6	FS loam	10YR3/2		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
6-24	Clay loam	10YR3/6		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
24+		Rocks couldn't auger anymore		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:

B-2

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Structure		
						Shape	Grade	Consistence
0-8"	FS loam	10YR3/2		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
8-28"	loamy sand	10YR4/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
28-33"	LFS	10YR5/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
33+			Red gums	Concentrations Depletions Gleyed	S2	Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:

U of MN Onsite Sewage Treatment Program Soil Boring Log

Client/ Address: #1 Washburn Lane North Oaks	Legal Description/GPS:	Date: 4/23/19
Soil Parent Material(s): Till <u>Outwash</u> Lacustrine Alluvium Loss Organic Matter Bedrock (circle all that apply)		
Landscape Position: Summit <u>Shoulder</u> Back/Side Slope Foot Slope Toe Slope (circle one)		
Vegetation: Woods	Soil Survey Map Unit(s):	Slope (%): 4%
Weather conditions/Time of Day: Afternoon/Sunny		Slope Shape:

B-3

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Structure		
						Shape	Grade	Consistence
0-6"	Fs loam	10YR5/2		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
6-18"	Clay loam	10YR3/0		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
18+	Sandy clay loam	10YR5/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:

B-4

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	Structure		
						Shape	Grade	Consistence
0-10"	Fs loam	10YR5/2		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
10-22"	Sandy loam	10YR4/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
22+	Sandy clay loam	10YR3/4	red grey	Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:

U of MN Onsite Sewage Treatment Program Soil Boring Log

Client/ Address: #1 Wishbone Ln North Oaks Legal Description/GPS: _____ Date: 4/23/19

Soil Parent Material(s): Till Lacustrine Alluvium Loess Organic Matter **Bedrock**
 (circle all that apply)

Landscape Position: Summit Shoulder Back/Side Slope Foot Slope Toe Slope
 (circle one)

Vegetation: Wood Soil Survey Map Unit(s): _____ Slope (%): 2
 Weather conditions/Time of Day: afternoon sunny Slope Shape: 1/1

Depth (in)	Texture	Matrix Color(s)	Mottle Color(s)	Redox Kind(s)	Saturated Soil Indicator(s) (see back)	I-----Structure-----I		Consistence
						Shape	Grade	
08"	fs 100m	10YR 3/2		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
8-21"	sandy 100m	10YR 4/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
21"	sandy clay 100m	10YR 5/4		Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid
				Concentrations Depletions Gleyed		Granular Platy Blocky Prismatic Single Grain Massive	Weak Moderate Strong Loose	Loose Friable Firm Extremely Firm Rigid

Comments:



Septic System Management Plan for Above Grade Systems

The goal of a septic system is to protect human health and the environment by properly treating wastewater before returning it to the environment. Your septic system is designed to kill harmful organisms and remove pollutants before the water is recycled back into our lakes, streams and groundwater.

This **management plan** will identify the operation and maintenance activities necessary to ensure long-term performance of your septic system. Some of these activities must be performed by you, the homeowner. Other tasks must be performed by a licensed septic maintainer or service provider. However, it is **YOUR** responsibility to make sure all tasks get accomplished in a timely manner.

The University of Minnesota's *Septic System Owner's Guide* contains additional tips and recommendations designed to extend the effective life of your system and save you money over time.

Proper septic system design, installation, operation and maintenance means safe and clean water!

Property Owner	Mike Konobeck	Email
Property Address	#1 Wishbone Lane North Oaks MN	Property ID
System Designer	ARK Septic LLC	Contact Info 763-760-4172
System Installer	LowBoyz Excavating	Contact Info 763-990-5690
Service Provider/Maintainer		Contact Info
Permitting Authority	City of North Oaks	Contact Info
Permit #		Date Inspected

Keep this Management Plan with your Septic System Owner's Guide. The Septic System Owner's Guide includes a folder to hold maintenance records including pumping, inspection and evaluation reports. Ask your septic professional to also:

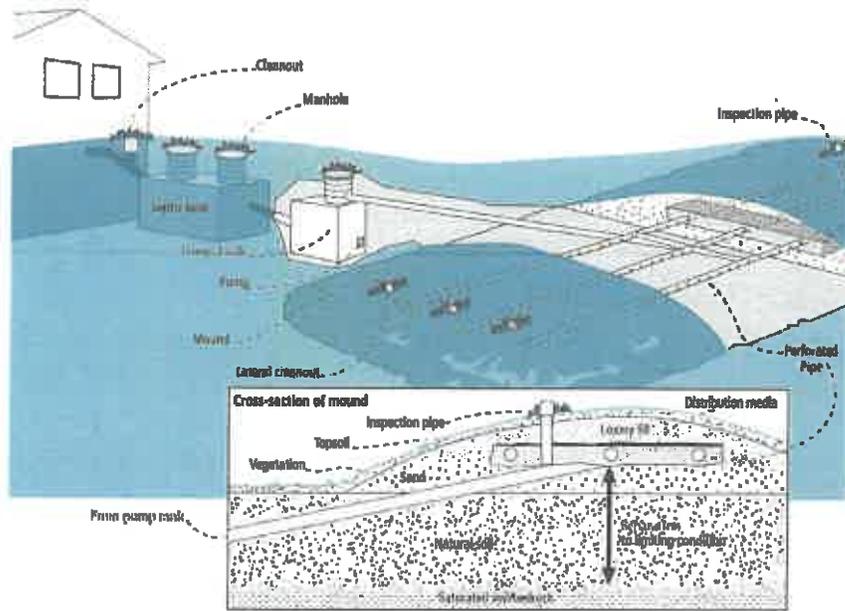
- Attach permit information, designer drawings and as-built of your system, if they are available.
- Keep copies of all pumping records and other maintenance and repair invoices with this document.
- Review this document with your maintenance professional at each visit; discuss any changes in product use, activities, or water-use appliances.

For a copy of the *Septic System Owner's Guide*, visit www.bookstores.umn.edu and search for the word "septic" or call 800-322-8642.

For more information see <http://septic.umn.edu>



Your Septic System



Septic System Specifics	
System Type: <input checked="" type="radio"/> I <input type="radio"/> II <input type="radio"/> III <input type="radio"/> IV* <input type="radio"/> V* <i>(Based on MN Rules Chapter 7080.2200 – 2400)</i> *Additional Management Plan required	<input type="checkbox"/> System is subject to operating permit* <input type="checkbox"/> System uses UV disinfection unit* Type of advanced treatment unit _____

Dwelling Type	Well Construction
Number of bedrooms: <u>5</u> System capacity/ design flow (gpd): <u>750</u> Anticipated average daily flow (gpd): _____ Comments _____ Business? : <input type="radio"/> Y <input checked="" type="radio"/> N What type? _____	Well depth (ft): <u>New, not installed</u> <input type="checkbox"/> Cased well Casing depth: _____ <input type="checkbox"/> Other (specify): _____ Distance from septic (ft): <u>50'+</u> Is the well on the design drawing? <input checked="" type="radio"/> Y <input type="radio"/> N

Septic Tank	
<input type="checkbox"/> First tank Tank volume: <u>2000/2</u> gallons Does tank have two compartments? <input checked="" type="radio"/> Y <input type="radio"/> N <input type="checkbox"/> Second tank Tank volume: <u>1000</u> gallons <input type="checkbox"/> Tank is constructed of <u>concrete</u> <input type="checkbox"/> Effluent screen: <input type="radio"/> Y <input checked="" type="radio"/> N Alarm <input checked="" type="radio"/> Y <input type="radio"/> N	<input type="checkbox"/> Pump Tank <u>1000</u> gallons <input type="checkbox"/> Effluent Pump make/model: _____ Pump capacity <u>36</u> GPM TDH <u>14</u> Feet of head <input type="checkbox"/> Alarm location <u>above pump</u>

Soil Treatment Area (STA)	
Mound/At-Grade area (width x length): <u>41</u> ft x <u>95</u> ft Rock bed size (width x length): <u>10</u> ft x <u>62</u> ft Location of additional STA: _____ Type of distribution media: <u>6" rock below pipe</u>	<input checked="" type="checkbox"/> Inspection ports <input checked="" type="checkbox"/> Cleanouts <input checked="" type="checkbox"/> Surface water diversions <input type="checkbox"/> Additional STA not available



Homeowner Management Tasks

These *operation and maintenance* activities are your responsibility. *Chart on page 6 can help track your activities.*

Your toilet is not a garbage can. Do not flush anything besides human waste and toilet paper. No wet wipes, cigarette butts, disposal diapers, used medicine, feminine products or other trash!

The system and septic tanks needs to be
checked every 36 months

Your service provider or pumper/maintainer should evaluate if your tank needs to be pumped more or less often.

Seasonally or several times per year

- **Leaks.** Check (listen, look) for leaks in toilets and dripping faucets. Repair leaks promptly.
- **Soil treatment area.** Regularly check for wet or spongy soil around your soil treatment area. If surfaced sewage or strong odors are not corrected by pumping the tank or fixing broken caps and leaks, call your service professional. *Untreated sewage may make humans and animals sick.* Keep bikes, snowmobiles and other traffic off and control borrowing animals.
- **Alarms.** Alarms signal when there is a problem; contact your service professional any time the alarm signals.
- **Lint filter.** If you have a lint filter, check for lint buildup and clean when necessary. If you do not have one, consider adding one after washing machine.
- **Effluent screen.** If you do not have one, consider having one installed the next time the tank is cleaned along with an alarm.

Annually

- **Water usage rate.** A water meter or another device can be used to monitor your average daily water use. Compare your water usage rate to the design flow of your system (listed on the next page). Contact your septic professional if your average daily flow over the course of a month exceeds 70% of the design flow for your system.
- **Caps.** Make sure that all caps and lids are intact and in place. Inspect for damaged caps at least every fall. Fix or replace damaged caps before winter to help prevent freezing issues.
- **Water conditioning devices.** See Page 5 for a list of devices. When possible, program the recharge frequency based on *water demand (gallons)* rather than *time (days)*. Recharging too frequently may negatively impact your septic system. Consider updating to demand operation if your system currently uses time,
- **Review your water usage rate.** Review the Water Use Appliance chart on Page 5. Discuss any major changes with your service provider or pumper/maintainer.

During each visit by a service provider or pumper/maintainer

- Make sure that your service professional services the tank through the manhole. (NOT through a 4" or 6" diameter inspection port.)
- Ask how full your tank was with sludge and scum to determine if your service interval is appropriate.
- Ask your pumper/maintainer to accomplish the tasks listed on the Professional Tasks on Page 4.



Professional Management Tasks

These are the operation and maintenance activities that a pumper/maintainer performs to help ensure long-term performance of your system. At each visit a written report/record must be provided to homeowner.

Plumbing/Source of Wastewater

- Review the Water Use Appliance Chart on Page 5 with homeowner. Discuss any changes in water use and the impact those changes may have on the septic system.
- Review water usage rates (if available) with homeowner.

Septic Tank/Pump Tanks

- *Manhole lid.* A riser is recommended if the lid is not accessible from the ground surface. Insulate the riser cover for frost protection.
- *Liquid level.* Check to make sure the tank is not leaking. The liquid level should be level with the bottom of the outlet pipe. (If the water level is below the bottom of the outlet pipe, the tank may not be watertight. If the water level is higher than the bottom of the outlet pipe of the tank, the effluent screen may need cleaning, or there may be ponding in the soil treatment area.)
- *Inspection pipes.* Replace damaged or missing pipes and caps.
- *Baffles.* Check to make sure they are in place and attached, and that inlet/outlet baffles are clear of buildup or obstructions.
- *Effluent screen.* Check to make sure it is in place; clean per manufacturer recommendation. Recommend retrofitted installation if one is not present.
- *Alarm.* Verify that the alarm works.
- *Scum and sludge.* Measure scum and sludge in each compartment of each septic and pump tank, pump if needed.

Pump

- *Pump and controls.* Check to make sure the pump and controls are operating correctly.
- *Pump vault.* Check to make sure it is in place; clean per manufacturer recommendations.
- *Alarm.* Verify that the alarm works.
- *Drainback.* Check to make sure it is draining properly.
- *Event counter or elapsed time meter.* Check to see if there is an event counter or elapsed time meter for the pump. If there is one or both, calculate the water usage rate and compare to the anticipated use listed on Design and Page 2. Dose Volume: _____ gallons: Pump run time: _____ Minutes

Soil Treatment Area

- *Inspection pipes.* Check to make sure they are properly capped. Replace caps and pipes that are damaged.
- *Surfacing of effluent.* Check for surfacing effluent or other signs of problems.
- *Lateral flushing.* Check lateral distribution; if cleanouts exist, flush and clean at recommended frequency.
- *Vegetation* - Check to see that a good growth of vegetation is covering the system.

All other components -- evaluate as listed here:



**Water-Use Appliances and
Equipment in the Home**

Appliance	Impacts on System	Management Tips
Garbage disposal	<ul style="list-style-type: none"> • Uses additional water. • Adds solids to the tank. • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Use of a garbage disposal is not recommended. • Minimize garbage disposal use. Compost instead. • To prevent solids from exiting the tank, have your tank pumped more frequently. • Add an effluent screen to your tank.
Washing machine	<ul style="list-style-type: none"> • Washing several loads on one day uses a lot of water and may overload your system. • Overloading your system may prevent solids from settling out in the tank. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Choose a front-loader or water-saving top-loader, these units use less water than older models. • Limit the addition of extra solids to your tank by using liquid or easily biodegradable detergents. Limit use of bleach-based detergents and fabric softeners. • Install a lint filter after the washer and an effluent screen to your tank • Wash only full loads and think even – spread your laundry loads throughout the week.
Dishwasher	<ul style="list-style-type: none"> • Powdered and/or high-phosphorus detergents can negatively impact the performance of your tank and soil treatment area. • New models promote “no scraping”. They have a garbage disposal inside. 	<ul style="list-style-type: none"> • Use gel detergents. Powdered detergents may add solids to the tank. • Use detergents that are low or no-phosphorus. • Wash only full loads. • Scrape your dishes anyways to keep undigested solids out of your septic system.
Grinder pump (in home)	<ul style="list-style-type: none"> • Finely-ground solids may not settle. Unsettled solids can exit the tank and enter the soil treatment area. 	<ul style="list-style-type: none"> • Expand septic tank capacity by a factor of 1.5. • Include pump monitoring in your maintenance schedule to ensure that it is working properly. • Add an effluent screen.
Large bathtub (whirlpool)	<ul style="list-style-type: none"> • Large volume of water may overload your system. • Heavy use of bath oils and soaps can impact biological activity in your tank and soil treatment area. 	<ul style="list-style-type: none"> • Avoid using other water-use appliances at the same time. For example, don't wash clothes and take a bath at the same time. • Use oils, soaps, and cleaners in the bath or shower sparingly.
Clean Water Uses	Impacts on System	Management Tips
High-efficiency furnace	<ul style="list-style-type: none"> • Drip may result in frozen pipes during cold weather. 	<ul style="list-style-type: none"> • Re-route water directly out of the house. Do not route furnace discharge to your septic system.
Water softener Iron filter Reverse osmosis	<ul style="list-style-type: none"> • Salt in recharge water may affect system performance. • Recharge water may hydraulically overload the system. 	<ul style="list-style-type: none"> • These sources produce water that is not sewage and should not go into your septic system. • Reroute water from these sources to another outlet, such as a dry well, drintile or old drainfield.
Surface drainage Footing drains	<ul style="list-style-type: none"> • Water from these sources will overload the system and is prohibited from entering septic system. 	<ul style="list-style-type: none"> • When replacing, consider using a demand-based recharge vs. a time-based recharge. • Check valves to ensure proper operation; have unit serviced per manufacturer directions



Homeowner Maintenance Log

Track maintenance activities here for easy reference. See list of management tasks on pages 3 and 4.

Activity	Date accomplished											
Check frequently:												
Leaks: check for plumbing leaks*												
Soil treatment area check for surfacing**												
Lint filter: check, clean if needed*												
Effluent screen (if owner-maintained)***												
Alarm**												
Check annually:												
Water usage rate (maximum gpd _____)												
Caps: inspect, replace if needed												
Water use appliances – review use												
Other:												

- *Monthly
- **Quarterly
- ***Bi-Annually

Notes:

"As the owner of this SSTS, I understand it is my responsibility to properly operate and maintain the sewage treatment system on this property, utilizing the Management Plan. If requirements in this Management Plan are not met, I will promptly notify the permitting authority and take necessary corrective actions. If I have a new system, I agree to adequately protect the reserve area for future use as a soil treatment system."

Property Owner Signature:  Date 04/27/2019
 Management Plan Prepared By: Ashley Krause Certification # 9575
 Permitting Authority: City of North Oaks

No. 19-04

**CITY OF NORTH OAKS, MINNESOTA
APPLICATION FOR CUP, VARIANCE, APPEAL, AMENDMENT, PLAN REVIEW**

Location of Property: (address) 98 WEST PLEASANT LAKE RD

Legal Description of Property: Tract _____ RLS _____

Fee Owner: STEPHEN MORIARTY 10 Willow Rd
Name Address

North Oaks, MN 55927 651-274-2900
City State Zip Contact Number/s

Signature of Fee Owner: SMORIARTY Date 5-9-19

Applicant: _____
(if different from owner) Name Address

City State Zip Contact Numbers/s

Signature of Applicant: _____ Date _____

Type of Request: (Please circle correct request)

CONDITIONAL USE PERMIT (as provided for in Chapter 151.076 of Code of Ordinances)

VARIANCE Septic

APPEAL

AMENDMENT

BUILDING / SITE PLAN REVIEW

OTHER

Please attach fifteen (15) copies of detailed written and graphic material fully explaining the proposed request and include the reason for the request, present zoning classification and existing use of the property.

(For office use)

Application received with \$450 fee on 5/10/19 Check# 1487 Amt# \$450.00

Date for review of completeness fifteen (15) business days from initial receipt 5/31/19

* If application is deemed incomplete, written notice must be sent to the applicant by above date stating the items that need to be submitted for the application to be deemed complete.

Deadline for action sixty (60) days from initial receipt 7/9/19

Extended deadline

** City may extend the review period by up to sixty days from the end of deadline for action only if applicant is notified in writing prior to the end of the initial sixty (60) day review period. The deadline may be extended beyond sixty days with applicant's approval.

Conditional Use or Amendment request - Public Hearing date _____

Planning Commission action:

Approval or disapproval on _____ with conditions _____

City Council Action:

Approval or disapproval on _____ with conditions _____

Variance, Appeal, Building/Site Plan Review, Other

Action of Board of Adjustment and Appeals:

Approval or disapproval on _____

Bond Required _____

Bond Received on _____

CITY REIMBURSEMENT POLICY

In connection with your request and submittal of material to be reviewed by the City of North Oaks, please be informed that if the City incurs any additional expense in the course of this application review beyond the normal processing fee, the cost will be assessed to the applicant. As authorized in Chapter 151.083 of the Ordinance Code, an applicant will be responsible for full reimbursement of incurred costs to the City of North Oaks. (A copy of this section of the Ordinance is available upon request.)

Your initial application fee of \$450.00 covers the processing of a typical zoning action. A typical process for reviewing a zoning action may include some or all of the following: City employee help in explaining the application process, City employee receipt of completed application and proper scheduling on appropriate agenda, one legal notice for a public hearing (if applicable), written notice to abutting property owners (if applicable) generation of a staff report, presentation of the staff report to the Planning Commission and presentation of the staff report and Planning Commission recommendation to the City Council.

If the scope of your application goes beyond

May 23, 2019
VARIANCE 19-04
Stephen Moriarty
98 West Pleasant Lake Road
RSL Zoning

Description of Request

The applicant is requesting a variance to install a type IV subsurface sewage treatment system (SSTS) on a newly developed lot. A variance is also needed from the two required required 5,000 square foot SSTS areas of 2,950 square feet and 1,250 square feet.

The applicable regulations are as follows:

§ 51.02 GENERAL PROVISIONS

(5) a) At the time of subdivision, development, or redevelopment, the developer of each lot, which will not be serviced by municipal sanitary sewer, shall identify 2 sites, each 5,000 square feet in size, for the purpose of sewage treatment and dispersal. These sites, as identified by the developer, shall be protected from all future encroachment by any improvements, construction, or other activities that may result in compaction or disturbance of soil on the site, other than the installation of a sewage treatment system

§ 51.03 STANDARDS ADOPTED

(5) *Type III and IV (Performance) Systems.* System Types I-IV are pursuant to Minn R 7080.2200 through 7080.2400. Type III and IV systems may be installed provided that:

b) Type IV systems may be installed on lots platted prior to the two 5,000 square foot site requirements referenced in Section 51.02(5)a), as a new or replacement system, where a Type I or III system cannot be installed; and, on all other lots, only as a replacement system where a Type I or III system cannot be installed.

Staff Review

This is a previously established undeveloped lot. At some point a trail was established along the south side of the property leading from West Pleasant Lake Road to Pleasant Lake. Disruption to the soil from the trail has resulted in an area of approximately 25 feet wide by 140 feet long being unusable for an SSTS.

Soil testing and SSTS design work has been completed by SP Testing, Inc. The initial SSTS site plan dated January 30, 2019 identified 10,000 square feet of area suitable for two type I systems. However, this required the location of the proposed house to be located further to the north.

A second plan was prepared and was included in an SSTS design dated May 9, 2019, which has the house located further to the south. The placement of the house in this plan encroaches into the 10,000 square foot septic area. This encroachment leaves only 5,800 square feet of area

VARIANCE 19-04

May 23, 2019

Page 2

remaining. Additionally, this would not leave adequate area to install type I primary and future systems, leaving room only for type IV systems.

Based on these facts, it is staff's opinion that the applicant has not met the requirements for a variance as outlined in Sections 51.02 (5) (a) and 51.03 (5) (b) of the code since an option exists which would not require either variance.

Action Requested

That the Planning Commission make a recommendation to the City Council to approve or deny Variance #19-04 to allow for the installation of a type IV system.

Motions

Motion to Approve

MOTION _____ SECOND _____

That Variance #19-04, for 98 West Pleasant Lake Road:

be APPROVED with the following conditions:

1. Completion date 360 days after approval.
2. System to be located per the design dated May 9, 2019 by SP Testing, Inc.

Motion to Deny

MOTION _____ SECOND _____

That Variance #19-04, for 98 West Pleasant Lake Road:

be DENIED with the following findings:

1. The applicant has not met the requirements for a variance as outlined in Sections 51.02 (5) (a) and 51.03 (5) (b) of the code since an option exists which would not require a variance.

Mike Robertson

From: Stephen Moriarty <moriartyfinancial@yahoo.com>
Sent: Thursday, May 23, 2019 10:10 AM
To: Debbie Schirmers; Brian Humpal
Cc: Mike Robertson; BRENT THOMPSON; Stephen Moriarty
Subject: Re: Moriarty Property/Variance

Hi Brian and Mike,

Thank you for your email. In answer to your question, there may be room to place type one systems on the property, but unfortunately that would require the home to be pushed to the north over 30 feet. Pushing the house over 30 feet to the north causes the following practical difficulties:

1. The variance application is requesting the home to be placed in the same location that it would have been able to be placed had the trail soils not been compacted and the type one system located on the trail area.
2. The unauthorized trail is unique to this property and was not caused by the land owner. The prior land owner even requested a chain-link gate to stop the traffic from further damage. These circumstances coupled with the sloping topography has caused the need for variance.
3. This request if granted will not alter the essential character of the locality. The home will be placed in accordance with other shore land neighbors and will fit the character of the area better with the variance than without. In addition there are over 50 working type for systems currently in North Oaks.

In summary, the variance approval is in harmony with the purpose and intent of the ordinance and is consistent with the comprehensive plan. The type 4 system is actually a better system and will allow for the removal of less trees and dirt, a smaller footprint for the drain field, and a cleaner pre-treated effluent with a monitoring alert system. All of these benefits will enhance the Pleasant Lake shore land. I am happy to hop on a call to discuss in more detail anytime today or tomorrow. Thank you!

Stephen

Stephen A. Moriarty
Stephen Moriarty Agency, Inc.
Insurance & Financial Services

4639 White Bear Pkwy, Suite 200, St. Paul, MN 55110
Voice 651-762-1630 Fax 888-569-1631
Farmers Helppoint/Claims 800-435-7764
stephen@stephenmoriarty.com



"The finest compliment I can receive is a referral!"

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On Thursday, May 23, 2019, 8:09:12 AM CDT, Brian Humpal <brian@midwestsoiltesting.com> wrote:

Steve,

I can almost be certain that the planning commission will be asking me if there is room for two type one systems that are not on compacted soils if the house were moved to the north. Would there be room for two type one systems if the house was positioned further north?

Thank you,

Brian Humpal
North Oaks SSTS Inspector
Phone: 651-492-7550
Brian@midwestsoiltesting.com

On May 21, 2019, at 11:04 AM, Brian Humpal <brian@midwestsoiltesting.com> wrote:

Steve,

Is there area for two type one systems on this property without a variance?

Thank you,

Brian Humpal
North Oaks SSTS Inspector
Phone: 651-492-7550
Brian@midwestsoiltesting.com



May 15, 2019

Stephen Moriarty
10 Willow Road
North Oaks, MN 55127

Re: Septic Variance Application

Dear Steve:

We have reviewed your septic Variance Application and I'm afraid we have to reject it as incomplete. There is an area adjacent to the trail easement that you claim is unbuildable for a septic system. However, we have no soil information and perc tests to verify that. Please contact City Septic Inspector Brian Humpal at 651/492-7550 or brian@midwestsoiltesting.com to determine exactly where he needs further tests performed.

Unless you let us know otherwise, we will hold on to your application at City Hall until you can submit the information to us, then your application can move ahead. Until then, your application is rejected as incomplete.

If you have any questions please contact me.

Michael Robertson
City Administrator
mrobertson@cityofnorthoaks.com
651/792-7750



p 651-792-7750
f 651-792-7751



northoaks@cityofnorthoaks.com
www.cityofnorthoaks.com



100 Village Center Drive, Suite 230
North Oaks, MN 55127



Gretchen Needham

From: Mike Robertson
Sent: Wednesday, May 15, 2019 10:03 AM
To: Brian Humpal
Cc: Gretchen Needham; Deb Breen
Subject: RE: Tract FF RLS 312 Stephen Moriarity Property

Brian,

I will send a letter to the applicant saying the application is incomplete until they provide us this information. I will direct them to contact you so that you can tell them exactly where the perc tests need to be done.

Mike

From: Brian Humpal <brian@midwestsoiltesting.com>
Sent: Wednesday, May 15, 2019 9:59 AM
To: Mike Robertson <MRobertson@cityofnorthoaks.com>
Subject: Tract FF RLS 312 Stephen Moriarity Property

Mike,

I have reviewed the variance request and have visited the site. The requested variance is siting that the existing walking trail has caused a hardship due to potential compaction over an area of 25 feet by 140 feet. My site visit revealed a walking path approximately 5-8 feet wide running along the southwest side of the property. Given that this is a relatively narrow walking path over sandy soils I'm going to have difficulty with the argument that a 25-140 foot area has been impacted. Additionally, the designer has indicated that this area contains compacted soil and is not suitable for a septic system. Unfortunately, they have not provided any percolation test to support their conclusions. At this point, I do not have enough information to be able to make a recommendation one way or another relative to the variance request. Please let me know if you have any questions.

Thank you,

Brian Humpal
North Oaks SSTS Inspector
Phone: 651-492-7550
Brian@midwestsoiltesting.com

SP TESTING INC.

Steven B. Schirmers – 951 Katydid Lane NE – St. Michael, MN 55376
Cert. No 627 – State License #394 – Phone 763-497-3566 – Fax 763-497-5011
www.sptesting.wastewater@comcast.net – schirmerswastewater.com

**Revised May 9, 2019
January 30, 2019**

**Stephen Morlarity
Tract FF, RLS 312
North Oaks, MN**

A variance is being requested for 2 Type IV systems verses 2 Standard Systems due to limited space available for placing the proposed home on this site.

This site has 2 sites available for a Type 1 systems, but due to the existing trail along the south property line using up an area 25' x 140' totaling 4200sq.ft. of usable area for the septic which is not suitable placement for a septic system due to not being original soil. ("Original soil" means naturally occurring soil that has not been cut, filled, moved, smeared, compacted, altered or manipulated to the degree that the loading rate must be reduced from that associated with natural soil conditions).

The remaining areas shown on the site plan (BOLD LINES 5800 sq.ft.) of the 10,000sq.ft. limits the placement for the home.

The proposal is to request a variance to allow 2 Type IV, systems, seepage beds (8.5' x 106' = 900sq.ft. on 14% slope leaving a 1.5' separation from the bottom of the rock & mottled soil (redox features).

The soils on this site are a loamy fine sand. The seasonally saturated soil, mottled soil (redox features) were present at a depth of 42" to 46". Pressurized seepage beds will be installed using Multi-Flo Wastewater Treatment system for pre-treatment.

A pumping chamber will need to be installed to lift the effluent to the treatment area. The power supply & switches must be located outside the manhole & pumping chamber in a weather proof enclosure. A warning device must be installed with a light & sound device, this is in case of a pump failure.

The manifold & supply line must have back drainage to the pumping chamber. Be sure the rock & sand fill material are clean. The sod layer below the entire mounded area must be turned over, just break up the sod.

All property lines must be located prior to installation.

If the tanks have less than 2' of cover, the lids, risers & maintenance hole covers must be insulated to a value of R10.

Cleanouts for each lateral with a sleeve must be insulated & be accessible from finished grade in an irrigation box with a ball valve.

All neighboring wells are located greater than 100' away from the proposed treatment area.

Keep all heavy equipment off of the proposed treatment area before and after construction. The treatment area should be marked off before construction. This design is not valid & the system will need to be relocated if failure to protect the sites for new on-site sewage systems.

MANAGEMENT PLAN:

The tanks need to be maintained at a minimum of 1 time every 2 years, check with your pumper to set up a schedule.

System inspected for areas by owner & or Inspector as determined by the local unit of Government.

Any other requirements as determined by the local unit of Government.

With proper installation & maintenance, this system should have no problem in treating septic effluent effectively.

Nothing other than human waste, toilet tissue, laundry, showers, water softners etc. should be disposed of into the system. Recommend iron filters be diverted out of the system. Garbage disposals are not recommended. Excessive amounts of soaps, antibacterial soaps, cleaning agents, shower cleaners used every shower & chlorine agents may kill the bacteria needed to treat septic effluent. Additives are not recommended. Recommend laundering be limited to 3 to 4 loads per day.

Steven B. Schirmers

Percolation Data Sheet

1. Contact Information

Property Owner: Stephen Moriarty

Site Address: Tract FF, RLS 312, North Oaks

2. General Percolation Information

Diameter 6 in

Date prepared and/or soaked: 9/2/18

Method of scratching sidewall: automatic siphon

Is pre-soak required? no * Not required in sandy soils

Soak* start time: Soak* end time: hrs of soak

Method to maintain 12 in of water during soak:

3. Percolation Test Data

Test hole: #1

Location:

Date reading taken: 9/2/18

Elevation: 903.9

Starting time: 11:30

Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 6	fine sandy loam
6 - 12	loamy fine sand

** 12 inches for mounds & at-grades,
depth of absorption area for trenches &
beds

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	11:30	11:38	12.00	12.00			
2	11:45	11:49	8.00	2.50	0.7	NA	NA
3	11:58	12:02	8.00	2.87	0.8	6.7	Yes
	12:05	12:09	8.00	3.12	0.8	11.3	Yes
	12:18	12:22	8.00	3.25	0.8	7.4	Yes

Chosen Percolation Rate for Test Hole #1 0.8 mpi

Additional percolation test data may be included on attached pages
Design Percolation Rate (maximum of all tests) =

0.80 mpi

Additional Percolation Data

Percolation Test Data

Test hole: #2 Location:
 Date reading taken: 9/2/2018 Elevation: 910
 Starting time: 11:31 Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 6	sandy loam
6 - 12	loamy medium sand

** 12 in. for mounds & at-grades, depth of absorption area for trenches and beds

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	11:31	11:36	12.00	12.00			
2	11:46	11:50	8.00	1.75	0.6	NA	NA
3	11:57	12:01	8.00	1.50	0.6	3.8	Yes
	12:06	12:10	8.00	1.75	0.6	3.8	Yes
	12:17	12:21	8.00	2.00	0.7	7.7	Yes

Chosen Percolation Rate for Test Hole #2 mpi

Percolation Test Data

Test hole: #3 Location:
 Date reading taken: 9/2/2018 Elevation: 910.4
 Starting time: 11:32 Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 6	sandy loam

** 12 in. for mounds & at-grades, depth of absorption area for trenches and beds

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	11:32	11:37	12.00	12.00			
2	11:47	11:51	8.00	1.50	0.6	NA	NA
3	11:56	12:00	8.00	1.75	0.6	3.8	Yes
	12:07	12:11	8.00	2.00	0.7	7.7	Yes
	12:16	12:20	8.00	2.12	0.7	9.5	Yes

Chosen Percolation Rate for Test Hole #3 mpi

Additional Percolation Data

Percolation Test Data

Test hole: #4 Location: _____
 Date reading taken: 9/2/2018 Elevation: 904.5
 Starting time: 11:33 Depth**: 12 inches

Soil texture description:

Depth (in)	Soil Texture
0 - 6	fine sandy loam
6 - 12	loamy fine sand

** 12 in. for mounds & at-grades, depth of absorption area for trenches and beds

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1	11:33	11:42	12.00	12.00			
2	11:48	11:52	8.00	2.50	0.7	NA	NA
3	11:53	11:59	8.00	3.00	0.8	9.1	Yes
	12:08	12:12	8.00	3.12	0.8	11.3	Yes
	12:15	12:19	8.00	3.25	0.8	5.0	Yes

Chosen Percolation Rate for Test Hole #4 _____ mpi

Percolation Test Data

Test hole: #5 Location: _____
 Date reading taken: _____ Elevation: _____
 Starting time: _____ Depth**: _____ inches

Soil texture description:

Depth (in)	Soil Texture

** 12 in. for mounds & at-grades, depth of absorption area for trenches and beds

Reading	Start Time	End Time	Start Reading (in)	End Reading (in)	Perc rate (mpi)	% Difference Last 3 Rates	Pass
1							
2						NA	NA
3						NA	NA

Chosen Percolation Rate for Test Hole #5 _____ mpi

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information	
Property Owner / project: <u>Stephen Moriarity</u>	Date <u>1/30/2019</u>
Property Address / PID: <u>TractFF, RLS312, North Oaks</u>	

Soil Survey Information	
<input type="checkbox"/> refer to attached soil survey	
Parent mat'l's:	<input type="checkbox"/> Till <input checked="" type="checkbox"/> Outwash <input type="checkbox"/> Lacustrine <input type="checkbox"/> Alluvium <input type="checkbox"/> Organic <input type="checkbox"/> Bedrock
landscape position:	<input type="checkbox"/> Summit <input type="checkbox"/> Shoulder <input type="checkbox"/> Side slope <input type="checkbox"/> Toe slope
soil survey map units:	<u>loamy fine</u> slope <u>18</u> % direction- _____

Soil Log #1							
<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation: <u>903.9</u>		Depth to SHWT: <u>48"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	fine sandy loam		10YR 3/2		Friable	Weak	Granular
6 - 22	loamy fine sand	0 - 15	10YR 4/3		Loose		Single grain
22 - 42	fine sand	0 - 15	10YR 5/3		Loose		Single grain
42 - 48	fine sand	0 - 15	10YR 5/6		Loose		Single grain
48 - 78	fine sand	0 - 15	10YR 6/2	10YR6/8, 10YR7/1	Loose		Single grain

Comments: SB#1 banding 42 - 72 1/2" sandy loam 10YR4/3, 10YR5/3 - #2 44 - 54 banding 1" 10YR 4/3 -
 #4 54 - 62 banding 1/2" loamy fine sand 10YR 4/3

Tract FF, RLS312, North Oaks

Soil Log #2

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>910</u>		Depth to SHWT <u>44"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	sandy loam		10YR 3/2		Friable	Weak	Granular
6 - 16	loamy medium sand	0 - 15	10YR 4/3		Loose		Single grain
16 - 44	fine sand	0 - 15			Friable		Single grain
44 - 54	fine sand	0 - 15	10YR 5/3		Loose		Single grain

Tract FF, RLS312, North Oaks

Soil Log #3

<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>910.4</u>		Depth to SHWT <u>42"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	sandy loam		10YR 3/2		Friable	Weak	Granular
6 - 24	loamy medium sand	0 - 15	10YR 5/4/3		Loose		Single grain
24 - 42	fine sand	0 - 15	10YR 6/4		Friable		Single grain
42 - 54	clay loam		10YR 5/3	10YR 6/8	Firm	Moderate	Prismatic
54 - 60	loam		10YR 5/6	10YR 6/8, 10YR 7/1	Firm	Moderate	Prismatic

I hereby certify this work was completed in accordance with MN 7080 and any local reg's.

Stu B. Schin
Designer Signature

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Tract FF RLS312, North Oaks		Soil Log #4					
<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>904.5</u>		Depth to SHWT <u>>78"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	fine sandy loam		10YR 3/2		Friable	Weak	Granular
6 - 54	loamy fine sand to medium sand	0 - 15	10YR4/3-10YR5/3		Loose		Single grain
54 - 62	fine sand	0 - 15	10YR 5/6		Loose		Single grain
62 - 72	loamy coarse sand	35 - 50	10YR 5/3		Loose		Single grain
72 - 78	medium sand	0 - 15	10YR 5/3		Loose		Single grain
Tract FF RLS312, North Oaks		Soil Log #5					
<input checked="" type="checkbox"/> Boring <input type="checkbox"/> Pit		Elevation <u>909.4</u>		Depth to SHWT <u>>54"</u>			
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	sandy loam		10YR3/2		Friable	Weak	Granular
6 - 18	loamy medium sand	0 - 15	10YR 4/3		Loose		Single grain
18 - 42	coarse sand	15 - 35	10YR 5/3		Loose		Single grain
42 - 54	medium sand	0 - 15	10YR 5/3		Loose		Single grain

I hereby certify this work was completed in accordance with MN 7080 and any local req's.

Stu B. Sabin
Designer Signature

SP Testing, Inc.
Company

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License #

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information

Property Owner / project: Stephen Moriarty Date 1/30/2018
 Property Address / PID: TractFF, RLS312, North Oaks

Soil Survey Information

refer to attached soil survey

Parent mat'l's: Till Outwash Lacustrine Alluvium Organic Bedrock
 landscape position: Summit Shoulder Side slope Toe slope
 soil survey map units: _____ slope 18 % direction- _____

Soil Log #6

Boring Pit

Elevation 910.5

Depth to SHWT >42"

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 16	loamy medium sand	0 - 15	10YR 4/3		Loose		Single grain
16 - 42	medium sand	0 - 15	10YR 5/3		Loose		Single grain

Comments:

Tract FF, RLS312, North Oaks

Soil Log #7

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>908.1</u>		Depth to SHWT <u>>72"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 12	fine sandy loam		10YR3/2-10YR4/3		Friable	Weak	Granular	
12 - 20	sandy clay loam		10YR 4/3		Firm	Moderate	Prismatic	
20 - 30	loamy fine sand	0 - 15	10YR 5/4		Loose		Single grain	
30 - 72	medium sand	0 - 15			Loose		Single grain	

Tract FF, RLS312, North Oaks

Soil Log #8

		<input checked="" type="checkbox"/> Boring	<input type="checkbox"/> Pit	Elevation <u>901.8</u>		Depth to SHWT <u>46"</u>		
Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape	
0 - 12	sandy loam		10YR 3/2		Friable	Weak	Granular	
12 - 18	loamy fine sand	0 - 15	10YR 4/3		Loose		Single grain	
18 - 46	fine sand	0 - 15	10YR 6/4		Friable		Single grain	
46 - 60	fine sand	0 - 15	10YR 6/4	10YR 6/8	Loose		Single grain	

I hereby certify this work was completed in accordance with MN 7080 and any local reg's.

St. B. Sch
Designer Signature

SP Testing Inc
Company

394
License #

Soil Observation Log

www.SepticResource.com vers 12.4

Owner Information

Property Owner / project: Stephen Moriarity Date 5/9/2019
 Property Address / PID: TractFF, RLS312, North Oaks

Soil Survey Information

refer to attached soil survey

Parent mat'l's: Till Outwash Lacustrine Alluvium Organic Bedrock
 landscape position: Summit Shoulder Side slope Toe slope
 soil survey map units: _____ slope _____ % direction- _____

Soil Log #9

Boring Pit

Elevation 905.7 Depth to SHWT 46"

Depth (in)	Texture	fragment %	matrix color	redox color	consistence	grade	shape
0 - 6	sandy loam		10YR 3/2		Friable	Weak	Granular
6 - 14	sandy loam		10YR 3/2		Friable	Weak	Granular
14 - 38	medium sand	0 - 15	10YR 5/3		Loose		Single grain
38 - 46	coarse sand	35 - 50	10YR 5/3		Loose		Single grain
46 - 54	coarse sand	35 - 50	10YR 6/3	10YR 6/8	Loose		Single grain

Comments: