

C & S MANAGEMENT CO., INC.

d.b.a.

Rite-Way WATERPROOFING

www.rite-waywaterproofing.com

448 Lilac Street • Lino Lakes, Minnesota 55014

(651) 786-0550

Fax (651) 786-0555

January 16, 2019

Stacy Rgnonti
1361 West 23rd Street
Hastings, MN 55033

RE: Letter of Findings * Draintile Inspection * Water Intrusion Analysis
@ 16848 Jonquil Trail
Lakeville, MN 55044

To whom it may concern,

Interior:

Upon my arrival I looked over the entire lower level of the home. I inspected the sump basin, the CMU blocks, the draintile system & under the carpeting. I removed the carpet in the bedroom and removed baseboard & trim in several locations in the lower living area (Pergo© floor area). I did not find any water stains nor did I find any mold/mildew on the carpet, tack strips, drywall or floors. The tack strips seem to be original to the home from 1987 and are made of pine. If pine gets wet it stains instantly and leaves a ring each time it occurs. The tack strips looked the same throughout the bedroom both in shade of color and in strength. There weren't any signs that the tack strips have ever seen water or damage from it.

If the home had a water intrusion problem the water would have left behind sediment from ground water such as iron, calcium or even a hard water stain. There are no signs of water penetration anywhere throughout the basement; against the exterior walls, common walls, or adjoining garage wall. There was no standing water inside the cores of the cinder block walls in the laundry/mechanical room. The laundry/mechanical room has exposed CMU block walls that are visible and the condition is that of a new home. One in which has never had water in the walls or inside the block cores.

This home has an interior drainage system, aka draintile, with a collection



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basin located in the laundry/mechanical room. The interior draintile system was put in by the builder around the entire interior perimeter of the lower level (basement). The current system does not have a sump pump or exit line. The system is however collecting all the water that is underneath the basement floor of the home. The current basin/basket has sand, silt & rocks in the bottom of the well; this is not uncommon to see. The majority of it happens at the time of build when the cleanup process is happening & when the system was being installed. The basin gets overlooked during clean-up because it is covered up once the concrete floor is laid. There is sand in the basin though and in the 4" corrugated drainage system at the end of the system. Drintile systems without a sump & pump unit can fill up entirely with water and because the water is intended to flow towards the basin, it can drag sand &/or sediments with it. If there were a pump installed the water would be ejected way sooner and not fill up as high in the system and drag the sand through with it.

The builder, Doug Pietsch, said he brought in 8 yards of sand when he was building the home. The sand goes underneath the floor and around the foundation of the home. The area this home is built in is known for dense clay soils. The builder also stated that he drilled holes in all the cavities of the cinder/CMU blocks below the floor level to drain water into the sand base & draintile system. The water that has flowed to the basin has drug sand with it and deposited it in the basin & the ends of the draintile system piping. The reason the builder brought sand is for a natural filtration system to channel or control water. Even though the ends of the pipes and the basin have water in them, they are still functioning. Water has filled the basin 2/3 full in the recent past. I can tell from the water stains left on the sides of the basin & the wet sand in the basket itself.

The interior draintile system seems to be functioning fine and is not completely blocked or plugged up to the best of my knowledge. Water has been in the basin/basket recently which tells me water is flowing to it.



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Exterior:

The grade is as high as it can be brought in most areas next to the foundation. The home does have positive grading around the perimeter. Grading has been done/installed correctly at this property & the back yard has a successful swale. This is a split/multi-level home with 4' knee walls. Knee-walls only go under the grade level between 3'-5' maximum.

Split or Multi-levels are not like ramblers or custom homes. Ramblers and custom homes have on average 7' -9' basement depths. That being said it is 70% less likely to ever get water penetrating through the foundation walls unless you have; poor grading, cracked blocks or deteriorated blocks.

The back yard is built up to a hillside behind it. The hill runs down towards the home but stops short about 20'. Someone has graded the yard to a swale approximately 20' from the foundation wall. The home is graded towards the swale as well as the hillside. The swale diverts water to both sides of the home and relocates the water towards the street and away from the home.



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Summary:

My professional summary for:

16848 Jonquil Trail, Lakeville MN 55044 is as follows;

The home shows no signs that it has ever taken on ground water from the visual & light intrusive inspection that I performed.

There are no water intrusion issues that need to be addressed from the exterior or exterior foundation. There aren't any re-grading issues nor does there need to be any adjustments made to the landscape or grade levels.

The interior draitile system is functioning in its current state, even with sand that has penetrated the pipe in the lower 25% - 40% & in the basin. The system is capturing the water that is pushing up under the interior slab via hydrostatic pressure & is relocating it to the sump basin as designed. It is not uncommon for certain areas (sand areas) in Minnesota to have the same outcome of sand in the drainage pipes or basins. The ends just need to be socked wrapped or filtered so the sand doesn't continue to fill up in the basin. Since sand naturally filters or allows water to pass smoothly through it, I do not see an issue with water flowing through the system in its current state.



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Recommendations:

I highly suggest manually cleaning out the sand in the ends of the draitile pipe/lines & the sump basin/basket. Once it has been cleared out of the ends I suggest covering or "sock" wrapping the ends of both draitile lines to keep sand from entering the basin in the future. I also suggest installing a minimum of a 1/3 HP sump pump, inline check valve & 1 1/2" PVC or ABS exit line to the outdoors as stated by law.

Sincerely,

Jeremy L. Orton
General Manager
General Contractor #BC692554
448 Lilac Street
Lino Lakes, MN 55014
651-786-0550 Office
651-786-0555 Fax
Jeremy@Rite-Waywaterproofing.com

Jeremy Orton's Certifications & Licenses

Minnesota General Contractor License #BC692554
EPA Lead Safe certified #NAT-70330-1
Asbestos Mitigation Certification
Radon Mitigation Certifications (2)
Healthy Homes Member
Basement Health Association Member
Minnesota Department of Health MDH Compliant
DOLI Department of Labor & Industry Compliant & Licensed

AW... DRY UP



Reg. U.S. Pat. Off.

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Field Notes 1 of 2

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GARAGE

* NO pump or exit line
Shows signs
water is still
going to basin (wetness)
& has filled in part
but not over flowed

gravel/silt
& sand in
basin &
partially in
4" D.T. pipe

- * KNEE WALL
- * 2 core blocks
- * 4" of 8" block under floor
- * 4" Corrugated builder drain tile
- * Builder said "holes were made in block cavities & sand brought in & laid under slab."

* No Scents, smells, mold, mildew present.

* No Signs of effluence on exposed block walls or water stains

* Grading in back yard is correct it has a nice swale

Kitchen

MID LEVEL

Dining

Assumed Builder Drain tile BASED OFF of BASIN LINES

Carpeted stairs, tracks & backers

Build-out

Shower single tiled unit

Talk

Vanity Tiles

Sump BASIN

LOWER LEVEL

Pergo floors

LIVING ROOM

Carpet floor
Bedroom

" MOST COMMON LEAK AREAS " → ALL AREAS I CHECKED FOR LEAKAGE, STAINS, MOLD OR MILDEW - FOUND NONE

THE FIRST WATERPROOFING SYSTEM WITH A LIFETIME GUARANTEE SINCE 1965

AW...
DRY UP



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Field Notes 2 of 2

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OWNER

Stacy Rgnanti

Selling

16848 Jonquil trail.
Lakeville

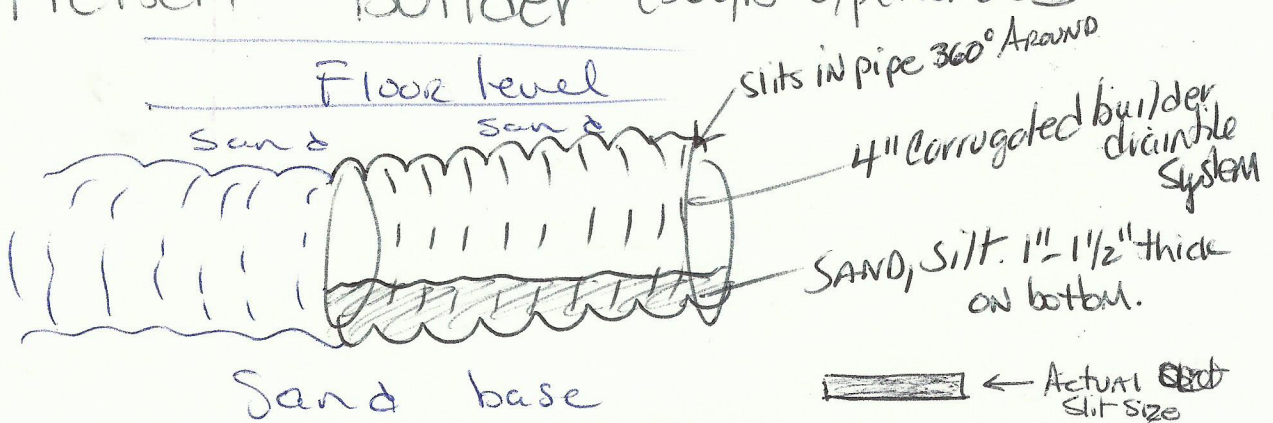
SELLING

Mailing

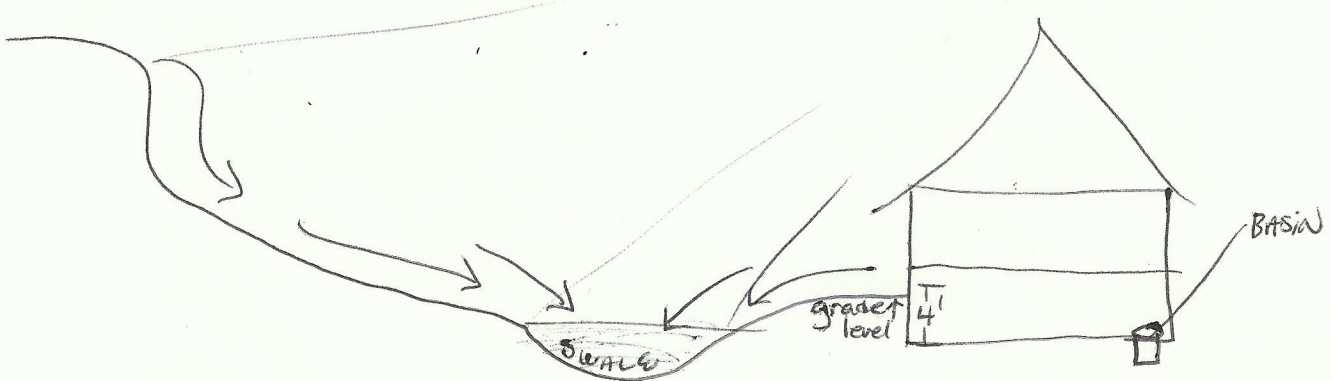
MAILING
Address

Doug Pietsch - Builder (30yrs experience)

Diag.
EX.#1



Diag.
EX.#2



THE FIRST WATERPROOFING SYSTEM WITH A LIFETIME GUARANTEE SINCE 1965