

**RYE TOWNSHIP  
SUPERVISORS' SPECIAL MEETING  
TROUT LANE STORMWATER PROJECT  
February 9, 2009**

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**PRESENT:** Chairman Robert Lightner, Vice-Chairman, Ronald Evans, Supervisor Sharon Cole Engdahl, Daisy Lightner, Secretary/ Treasurer, Daniel and Kelly Miller, Tom Graupensperger and Dave Bailey, PE of GTS Technologies, Inc.

This meeting was advertised in the Patriot News and proof of publication is on file. The meeting was held at the municipal building and called to order at 7:31 PM. Chairman Robert Lightner convened the meeting with the pledge of allegiance to the flag. The meeting was tape recorded to aid with the preparation of minutes.

**CITIZEN PARTICIPATION:** Chairman Lightner asked if there was any citizen participation at this time. Daniel and Kelly Miller of 4 Trout Lane introduced themselves and said they were aware of water run off problems and attended this meeting to gather more information regarding what the concerns and proposed resolutions to those concerns are.

Tom Graupensperger introduced himself and engineer Dave Bailey from GTS Technologies. Graupensperger said GTS is under an agreement with Rye Township to assist with site investigation and design services for the Fishing Creek Estates, Trout Lane drainage concerns.

Graupensperger provided the Board with copies of an agenda. He reviewed the **Scope of Work** listed on the agenda with the Board and residents in attendance:

- **Review Plans/As Built Conditions**  
Graupensperger said subdivision files were researched. The subdivision for Trout Lane was approved and the roadway paved in 1992. So Trout Lane is sixteen (16) years old and has never been resurfaced. Graupensperger said most roads need maintenance typically every 10 years depending on usage. Trout Lane is also very wide at 27 feet. The worst areas of pavement deterioration were observed in the upper area from the middle cul-de-sac to the ending cul-de-sac.
- **Survey Stake Drainage Easements**  
Information was retrieved from the courthouse. Easements will be located on site and determinations made if the easements need repaired, relocated, or reconstructed. There are two basins located within the development.
- **Review In-field/During Event Runoff Conditions**  
Graupensperger traveled on-site this past weekend to observe the run off with the snow melt and noted one driveway was improperly constructed and incorrectly conveys the water runoff into the middle of the roadway instead of into the drainage ditch. The crown of Trout Lane is deteriorated and now the water runs down the middle of the roadway. Graupensperger said the roadway and crown deterioration are due to several issues. The age of the roadway contributes to the problem. Additionally, there are issues with the types of problematic soils & high water tables in this area that contribute, along with the improperly constructed driveway which exacerbates the problem. Reflective cracking was also noted wherever underground utilities were installed and in areas where cut and fill areas are located, in particular at the uppermost cul-de-sac. Reflective cracking was observed in the middle cul-de-sac paving. Resurfacing with stronger materials may correct some of the reflective cracking. Graupensperger provided digital photographs of some of the problem areas discussed.

- **Review Property Owners RFAs & Meet with Township & Property Owners**  
Graupensperger talked with Brad Sloop of the Township road crew to identify areas of Concern observed during road maintenance. The Board noted previous concerns were received from residents at 7 Trout Lane, 13 Trout Lane and 19 Trout Lane. When additional work is completed and issues are identified, a future meeting inviting all property owners will be scheduled.
- **Determine Existing Hydrology/Hydraulic Capacities**  
Computations for total run off coming from the top of the mountain and draining down onto Trout Lane will be compiled which will then assist with designing the sizes for pipe and rock replacements.
- **Develop Alternative Treatments/Cost Estimates**  
This will be completed after the storm water computations are calculated and problem areas determined. The use of in-house labor to do some of the digging/grading etc will be taken into consideration in the estimates.
- **Attend Review Meeting and provide Recommendations**

Graupensperger reviewed the digital photographs with the Board and discussed **Potential Recommendations** at this point as follows:

1. Deal with the drainage concerns and repairs first at the upper portion of Trout Lane.. In their opinion, a full depth reclamation of the entire roadway is not considered necessary. Trout Lane's average daily traffic, ADT, is estimated at 200 vehicles. A softer material such as an FB pavement, which performs best with freezing and thawing is recommended with repair and building up of the road base in some areas.
2. Purchase a leaf loader/vacuum to better maintain the drains with the leaves falling from the surrounding mountainside.
3. Increase depth of swale and size of rock in berms
4. Install cross drains to carry water from one side of the road to the other to better distribute the water run off.
5. Install parallel drains with geo textile fabric along roadway
6. Grade along berm in the lower portion of Trout Lane at the south western corner  
This area is too high.
7. Repair and revise several existing driveway entrances
8. Install a bio retention system in the center of the middle cul-de-sac. Take out the center of the paving and plant vegetation in the center.
9. Minimize the width of the roadway, which is currently 27 feet. Over time reduction of the width of a roadway reduces the cost of maintenance for the Township.  
(Other wide roadways were also noted such as Stiles Drive, Mountain Dale Drive and roads such as Reed Drive in Lee Wood Village.)

**RECOMMENDATIONS FOR THE FUTURE:**

1. Update the Township Ordinances to require additional base material from 6” to 8” of stone and geo textile fabric as part of the roadway design
2. Update the Township Ordinances to require more stringent controls such as compaction testing during construction
3. Update the Township Ordinances to designate the developer to be responsible for the proper construction of driveway entrances unto Township roadways and require a bond to assure proper construction.

(As requested, the Secretary/Treasurer indicated she would pass along numbered items 1, 2, and 3 directly above to the Planning Commission members and secretary since they are currently in the process of updating the Ordinances.)

Vice-Chairman Evans asked if it would be best to pave the side ditches. Graupensperger offered that it is best to install the under drain in the bottom of the ditch, put the fabric over the entire swale and reinstall the correct size rock.

Chairman Lightner asked if the Township road crew would be able to do most of the work proposed in the above recommendations. Graupensperger offered that the majority of the work could be accomplished by the road crew. Graupensperger indicated he would be willing to meet with the road crew to explain the designs etc. for the proposed improvements and repairs. Graupensperger said when preparing the cost estimates he would consider both options- 1)the assistance of a contractor and, 2)the road crew providing the labor with possibly the rental of the necessary equipment.

Discussion ensued on monies to accomplish the drainage repairs and the use of Liquid Fuels funds for purchase of the materials. The District #8 engineer would be consulted for eligibility of the Project for Liquid Fuels funding when more specifics of the Trout Lane project are known.

The Board appreciated the presentation provided.

**ADJOURNMENT OF THE MEETING:** With no further business before the Board, Cole Engdahl made a motion and Lightner seconded to adjourn the special meeting at 8:32 pm. Motion carried unanimously.

Respectfully submitted,

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Daisy Lightner  
Secretary/Treasurer