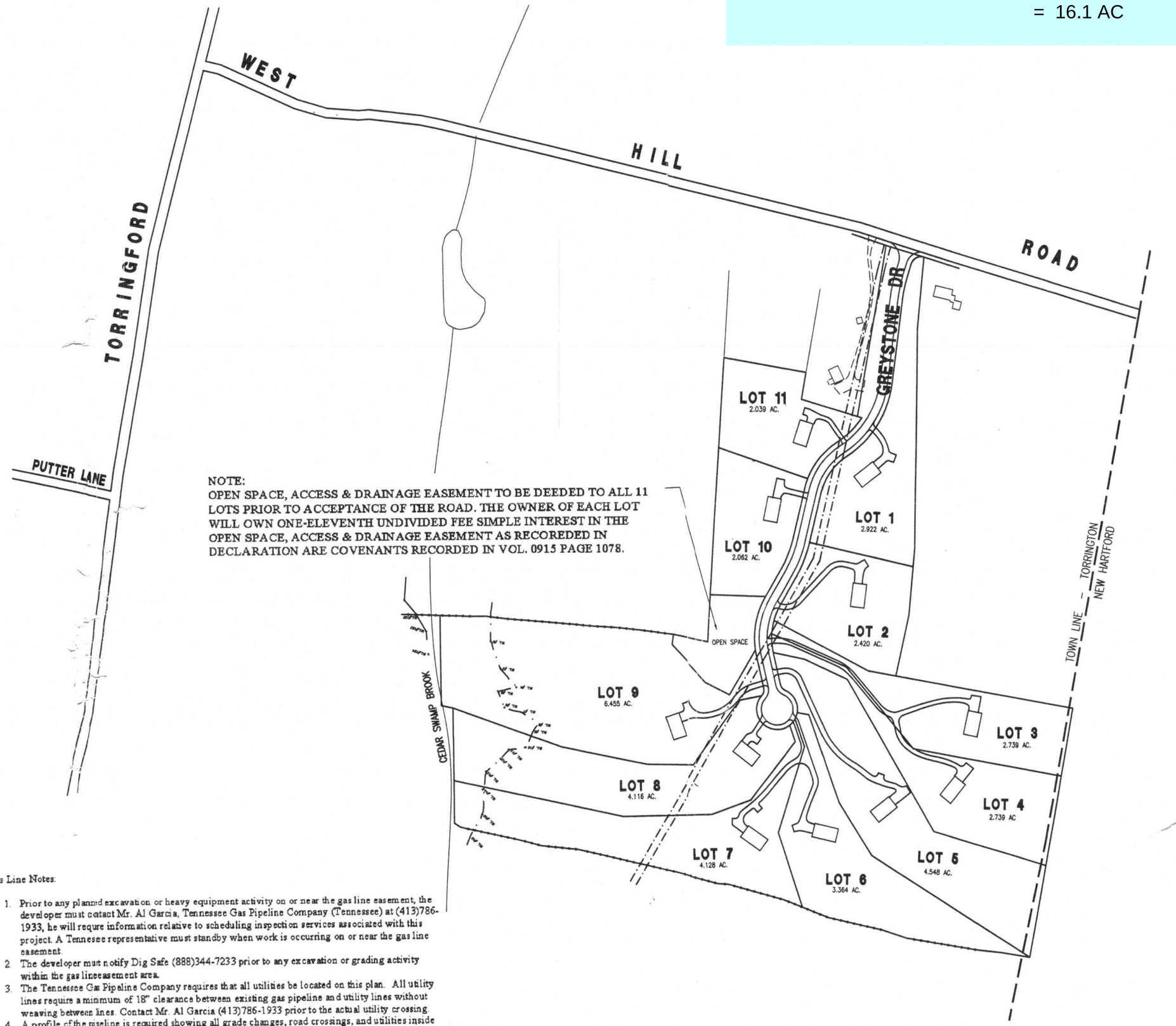
GENERAL NOTES

1. SEE SHEET 1 & SHEET 2 FOR SURVEY NOTES.
2. INFORMATION REGARDING THE LOCATION OF EXISTING UTILITIES IS BASED UPON AVAILABLE INFORMATION AND MAY BE INCOMPLETE, AND WHERE SHOWN SHOULD BE CONSIDERED APPROXIMATE. THE LOCATION OF ALL EXISTING UTILITIES SHOULD BE CONFIRMED PRIOR TO BEGINNING CONSTRUCTION. CALL "CALL BEFORE YOU DIG." (1-800-922-4455). ALL UTILITY LOCATIONS THAT DO NOT MATCH THE VERTICAL OR HORIZONTAL CONTROL SHOWN ON THE PLANS SHALL IMMEDIATELY BE BROUGHT TO THE ATTENTION OF THE ENGINEER FOR RESOLUTION.
3. BOUCHER & HEUREUX, INC. ACCEPTS NO RESPONSIBILITY FOR THE ACCURACY OF MAPS AND DATA WHICH HAVE BEEN SUPPLIED BY OTHERS.
4. ALL UTILITY SERVICES ARE TO BE UNDERGROUND. THE EXACT LOCATION AND SIZE OF ELECTRIC, TELEPHONE AND CABLE TELEVISION ARE TO BE DETERMINED BY THE RESPECTIVE UTILITY COMPANIES.
5. ALL DIMENSIONS AND ELEVATIONS SHALL BE VERIFIED IN THE FIELD PRIOR TO CONSTRUCTION. ANY DISCREPANCIES SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER.
6. SEDIMENT AND EROSION CONTROL MEASURES AS DEPICTED ON THESE PLANS AND DESCRIBED WITHIN THE SEDIMENTS AND EROSION CONTROL NARRATIVE SHALL BE IMPLEMENTED AND MAINTAINED UNTIL PERMANENT COVER AND STABILIZATION IS ESTABLISHED. ALL SEDIMENT AND EROSION CONTROL MEASURES SHALL CONFORM TO THE "GUIDELINES FOR SOIL EROSION AND SEDIMENT CONTROL, CONNECTICUT – REVISED 2002," AND IN ALL CASES BEST MANAGEMENT PRACTICES SHALL PREVAIL.
7. ALL DISTURBED AREAS SHALL RECEIVE A MINIMUM OF 6" TOPSOIL, AND BE SEEDED WITH GRASS OR SODDED, AS SHOWN ON THE PLANS.
8. ALL STORM DRAIN PIPE SHALL BE REINFORCED CONCRETE PIPE (RCP) UNLESS OTHERWISE INDICATED.
9. ALL PROPOSED CONTOURS AND SPOT ELEVATIONS INDICATE FINISHED GRADE.
10. ALL CONSTRUCTION MATERIALS AND METHODS SHALL CONFORM TO THE TOWN OF TORRINGTON REQUIREMENTS AND TO THE APPLICABLE SECTIONS OF THE STATE OF CONNECTICUT DEPARTMENT OF TRANSPORTATION STANDARD SPECIFICATIONS FOR ROADS, BRIDGES, AND INCIDENTAL CONSTRUCTION, FORM 814A 1995 AND ADDENDUMS.
11. ALL SANITARY SEWER PIPE SHALL BE PVC ASTM 3034 SDR35 UNLESS OTHERWISE INDICATED. PROPOSED CONNECTIONS TO EXISTING STRUCTURES SHALL BE IN ACCORDANCE WITH TOWN STANDARDS.
12. ALL GUTTERS, ROOF DRAINS, FOUNDATION DRAINS AND SEPTIC CURTAIN DRAINS SHALL BE TIED INTO THE PROPOSED STORM DRAINAGE SYSTEM WHEN POSSIBLE.
13. ANY MAINTENANCE OR REFUELING OF EQUIPMENT AND VEHICLES SHALL BE PERFORMED AT LEAST 50' FROM WETLANDS OR WATERCOURSES. OIL, GASOLINE AND CHEMICALS NEEDED AT THE SITE SHOULD BE STORED IN A SECONDARY CONTAINER AT LEAST 50' FROM WETLANDS OR WATERCOURSES TO PREVENT CONTAMINATION FROM POSSIBLE LEAKS.
14. THE PLANS REQUIRE A CONTRACTOR'S WORKING KNOWLEDGE OF LOCAL, MUNICIPAL, WATER AUTHORITY, AND STATE CODES FOR UTILITY SYSTEMS. ANY CONFLICTS BETWEEN MATERIALS AND LOCATIONS SHOWN, AND LOCAL REQUIREMENT SHALL BE BROUGHT TO THE ATTENTION OF THE ENGINEER PRIOR TO THE EXECUTION OF WORK. THE ENGINEER WILL NOT BE HELD LIABLE FOR COSTS INCURRED TO IMPLEMENT OR CORRECT WORK WHICH DOES NOT CONFORM TO LOCAL CODE.
15. ALL FUEL, OIL, PAINT, OR OTHER HAZARDOUS MATERIALS USED DURING CONSTRUCTION SHOULD BE STORED IN A SECONDARY CONTAINER AND REMOVED TO A LOCKED INDOOR AREA WITH AN IMPERVIOUS FLOOR DURING NON-WORK HOURS.
16. THE PROPOSED HOUSES ON LOTS #1-11 ARE TO HAVE PRIVATE SEPTIC SYSTEMS & INDIVIDUAL WELLS.
17. COMPLIANCE WITH THE PERMIT CONDITIONS IS THE RESPONSIBILITY OF BOTH THE CONTRACTOR AND THE PERMITTEE.

CONSTRUCTION SEQUENCE

1. PRIOR TO COMMENCEMENT OF WORK A PRE-CONSTRUCTION MEETING SHALL BE HELD WITH TOWN STAFF AND REPRESENTATIVES OF THE CONTRACTOR AND OWNER. AT THIS MEETING, ONE PERSON WILL BE PLACED IN CHARGE OF SEDIMENT AND EROSION CONTROL FOR THE ENTIRE SITE.
2. CONTRACTOR TO BE RETAINED TO STAKE OUT LIMIT OF DISTURBANCE AND VEGETATION. NO DISTURBANCE IS TO TAKE PLACE BEYOND THE LIMITS OF WORK SHOWN. THE CONTRACTOR SHALL NOTIFY THE LANDSCAPE ARCHITECT, TOWN ENGINEER, AND THE ZONING ENFORCEMENT OFFICER PRIOR TO REMOVAL OF ANY VEGETATION IN ORDER TO APPROVE THE CLEARING LIMITS. SIGNIFICANT VEGETATION DEEMED "SAVABLE" BY THE LANDSCAPE ARCHITECT (USING REASONABLE MEANS, i.e. TREE WELLS) WILL BE TAGGED.
3. CONTRACTOR TO INSTALL SEDIMENT AND EROSION CONTROLS ALONG THE PERIMETER, AND INSTALL STABILIZED CONSTRUCTION ENTRANCES.
4. CONSTRUCT & STABILIZE THE SEDIMENTATION BASINS & TEMPORARY DRAINAGE SWALES. UPON STABILIZATION OF THESE MEASURES, THE CONTRACTOR MAY CONTINUE WITH CLEARING AND GRUBBING.
5. CLEAR AND GRUB SITE AND STOCKPILE TOPSOIL. PLACE SEDIMENT FILTER FENCE AND HAYBALES AROUND STOCKPILES.
6. CONTRACTOR TO INSTALL DIVERSION BERMS AND SEDIMENT BASINS PER THE SEDIMENT AND EROSION CONTROL PLAN.
7. INITIATE MASS EARTHWORK OPERATIONS AFTER ALL BASINS, BERMS, SWALES, SILT FENCE AND HAYBALES ARE INSTALLED. PERFORM ROCK REMOVALS BY MECHANICAL METHODS PRIOR TO BLASTING OPERATIONS. ANY BLASTING OPERATIONS REQUIRED ARE TO BE PERFORMED IN ACCORDANCE WITH BLASTING SPECIFICATIONS PREPARED BY A LICENSED PROFESSIONAL ENGINEER INCLUDING BUT NOT LIMITED TO; NOTIFICATION OF ALL ABUTTERS, TEST BLASING PROGRAM, SEISMOGRPAHIC MONITORING AND USE OF CONTROLLED BLASTING TECHNIQUES. THE BLASTER IS REQUIRED TO OBTAIN A PERMIT FROM THE LOCAL FIRE MARSHALL AND SHALL PERFORM A PRE-BLAST SURVEY PRIOR TO ANY DISCHARGE OF EXPLOSIVES.
8. COMMENCE PUBLIC ROAD CONSTRUCTION.
9. SLOPES ARE TO BE ESTABLISHED AS SOON AS PRACTICAL BEFORE UTILITY INSTALLATION. STABILIZE ALL SLOPES IMMEDIATELY AFTER THEIR ESTABLISHMENT.
10. INSTALL RETAINING WALLS, UTILITIES AND CURBS.
11. CLEAN TEMPORARY SEDIMENT BASINS WHEN THERE IS 12" OF SEDIMENT IN THE SEDIMENT FOREBAY.
12. THE SEDIMENT AND EROSION CONTROL PLAN SHALL BE MODIFIED BY THE CONTRACTOR AT THE DIRECTION OF THE ENGINEER AS NECESSITATED BY CHANGING SITE CONDITIONS.
13. INSPECTION OF THE SITE FOR EROSION SHALL CONTINUE FOR A PERIOD OF THREE MONTHS AFTER COMPLETION WHEN RAINFALLS OF ONE INCH OR MORE OCCUR.
14. ALL DEWATERING WASTE WATERS SHALL BE DISCHARGED IN A MANNER WHICH MINIMIZES THE DISCOLORATION OF THE RECEIVING WATERS.
15. THE SITE SHOULD BE KEPT CLEAN OF LOOSE DEBRIS, LITTER AND BUILDING MATERIALS SUCH THAT NONE OF THE ABOVE ENTER WATERS OR WETLANDS.
16. A COPY OF ALL PLANS AND REVISIONS, THE SEDIMENT AND EROSION CONTROL PLAN, A COPY OF THE STORMWATER GENERAL PERMIT, AND A COPY OF THE CONN. DEP PERMIT APPLICATION AND SUPPORTING INFORMATION SHALL BE MAINTAINED ON-SITE AT ALL TIMES DURING CONSTRUCTION. AN ADDITIONAL COPY OF THESE DOCUMENTS SHALL BE PROVIDED TO THE TOWN ENGINEER.
17. WHEN CONSTRUCTION IS COMPLETED OR THE ENTIRE SITE IS STABILIZED, THE SEDIMENT BASINS SHALL BE CLEARED OF SEDIMENT, SHAPED PER THE GRADING ON THESE PLANS, AND VEGETATION SHALL BE RESTORED.

TOTAL AREA OF TREE CLEARING= 701184.45 SF
= 16.1 AC



NOTE:
OPEN SPACE, ACCESS & DRAINAGE EASEMENT TO BE DEEDED TO ALL 11 LOTS PRIOR TO ACCEPTANCE OF THE ROAD. THE OWNER OF EACH LOT WILL OWN ONE-ELEVENTH UNDIVIDED FEE SIMPLE INTEREST IN THE OPEN SPACE, ACCESS & DRAINAGE EASEMENT AS RECOREDED IN DECLARATION ARE COVENANTS RECORDED IN VOL. 0915 PAGE 1078.

"GREYSTONE"

TORRINGTON, CT

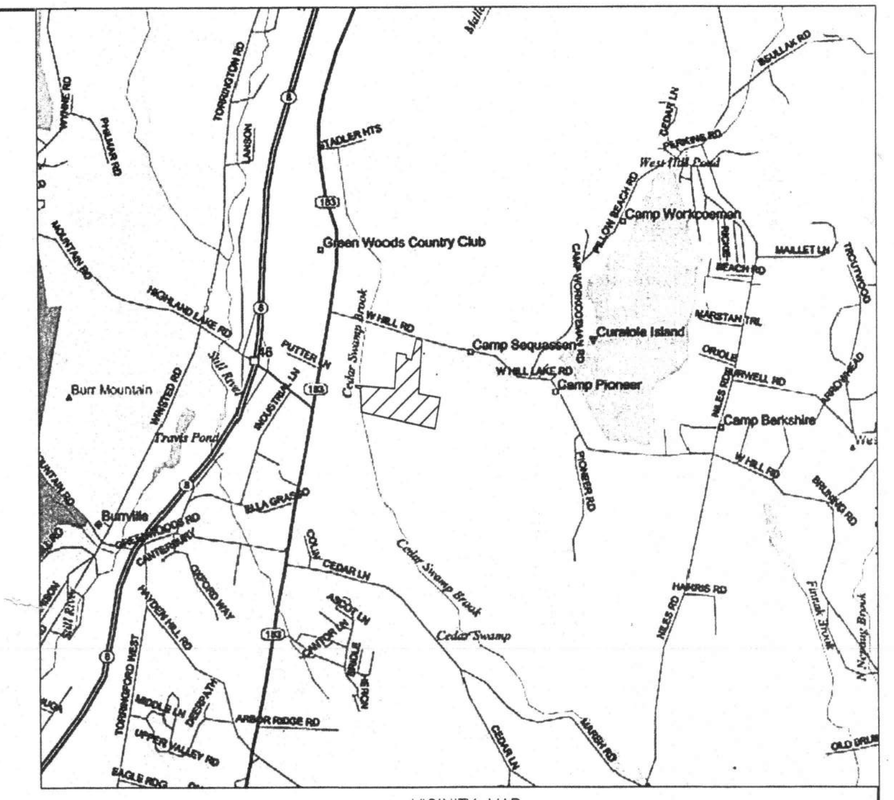
Gas Line Notes:

1. Prior to any planned excavation or heavy equipment activity on or near the gas line easement, the developer must contact Mr. Al Garcia, Tennessee Gas Pipeline Company (Tennessee) at (413)786-1933, he will require information relative to scheduling inspection services associated with this project. A Tennessee representative must standby when work is occurring on or near the gas line easement.
2. The developer must notify Dig Safe (888)344-7233 prior to any excavation or grading activity within the gas line easement area.
3. The Tennessee Gas Pipeline Company requires that all utilities be located on this plan. All utility lines require a minimum of 18" clearance between existing gas pipeline and utility lines without weaving between lines. Contact Mr. Al Garcia (413)786-1933 prior to the actual utility crossing.
4. A profile of the pipeline is required showing all grade changes, road crossings, and utilities inside the gas line easement. Test pits may need to be completed for this information, Contact Mr. Al Garcia (413) 786-1933.
5. Any blasting within 300 feet of the easement will require prior written approval by Tennessee. Please allow a minimum of four weeks for review and approval of all blasting plans. These plans must meet applicable Federal, State and Local regulations. Tennessee Gas Pipeline will require and provide a licensed blasting inspector when blasting occurs within 150' of the easement. All costs associated with inspection will be billed back to the owner or developer.
6. The owner or developer must excavate the pipeline the entire length of the proposed road and driveway crossings in order to check bedding and coating. This work must be done under Tennessee Gas Pipeline Company direct supervision and by a contractor who meets their requirements. If new bedding is required within this project, it will be at the owner/developer's expense.
7. All of Tennessee Gas Pipeline's safety guidelines will be followed. If these requirements cannot be met, Tennessee Gas Pipeline will reserve the right to complete this project with their alliance contractor and all related costs will be billed back to the owner or developer. If developer/owner desires to use their own contractor, the following conditions must be met.
   - Contractor must have in place prior to any work on the Pipeline easement a minimum of $5 million liability insurance.
   - A drug testing policy to be approved by Tennessee Gas Pipeline Company.
   - Each operator must be qualified and maintain a valid heavy equipment operator licensed in the state of the proposed project, if applicable.
   - Contractor must meet the Department of Transportation Operation Qualification to work on high pressure natural gas pipelines prior to any work within the pipeline easement.
8. No trees shall be planted within the confines of the right of way and easements. Trees within this area are considered any tree that can grow to a height of (5) feet or more. This would include such species such as fir, pine, arborvitae, hemlock, maple, rhododendron, birch, fruit trees, and willow, etc. Such trees inhibit access to the pipeline and their roots can damage the pipeline. Shrubs that do not reach a mature height of greater than five (5) feet may be located within Tennessee Gas Pipeline's right of way provided they are not planted within (10) feet of the pipeline. Note that under the terms of the right of way agreements, Tennessee Gas Pipeline still can reserve the right to cut or remove any trees and or shrubs that interfere with the operation and maintenance of its facilities.

Gas Line Notes (cont.)

9. No structures above ground and below ground, dwellings, trees, septic systems, leach fields, swimming pools, water impoundment, catch basns, sewer manholes or other obstructions may be erected or placed upon the Company's permanent right of way and easement area. Such obstructions interfere with their ability to access patrol, operate and maintain the pipeline facilities.
10. All areas of the easement disturbed by the owner/developer's activities must be stabilized as soon as possible. The area shall be limed, fertilized seeded and mulched if necessary. Thereafter, and until re-vegetation has been established, any areas that show signs of erosion shall be immediately repaired.
11. Any associated cost Tennessee may have regarding the project outside our normal course of business will be 100% reimbursable by the owner/developer. The normal services typically cover items such as, line location, site inspection less than 2 hours, and project review. Contact Tennessee Gas Pipeline Company (Tennessee) at (413)786-1933 for normal services.
12. Compliance with these plans does not suggest or imply that the owner/developer, contractors, consultants or any associated party is relieved of any responsibility or liability in the event Tennessee's pipelines or facilities are damaged in any way before, during or after the construction of the project. Tennessee will hold all parties responsible for the costs incurred for any breach of the pipeline of facility integrity.

200 0 100 200 400
SCALE IN FEET



VICINITY MAP
SCALE 1"=2,000'±

LIST OF DRAWINGS

PROJECT DATA

1 Boundary prepared by: Dvid Little Surveyors, Torrington, CT.
2 Topography by Golden Aelal Photogrammetry, Newtown, CT.
3 Contour Interval - 2'
4 Acreage: 40.797 ~~40.55~~
5 Zoned: R-WP & R25
6 Proposed Use: Single Family Dwellings
7 Total Number of Units: 11
8 Setbacks: Front - 50'
Side - 25'
Rear - 100'
9 Minimum Lot Area: 87,000
10 Minimum Lot Width: 200' @ Front B.R.L.
11 Maximum Building Height: 2 stories
12 Proposed Sanitary Disposal: Individual Septic Fields – Lots 1–11
13 Individual Wells on Each Lot:
14 Soils Types (Limits indicated thus):
Paxton – PeC, PdB, PeD, PbB, Well drained, fine sandy loam.
Woodbridge – WsC – moderately well drained, fine sandy loam.
Leicester – Lg – Wetland soils
15 Soil Mapping was from the National Cooperative Soil Survey Classification System and Soil Conservation Service County Soil Survey. Litchfield County, Conn.
16 Wetland delineation was done by Stansfield Environment Services, Goshen, Conn.

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____
CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____
CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

ALAN J. HEUREUX, DATE 7/24/06
PROFESSIONAL ENGINEER
CT. REG. No. 16861

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE-NAMED PERSON.

TITLE:
SUBDIVISION
PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 &18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

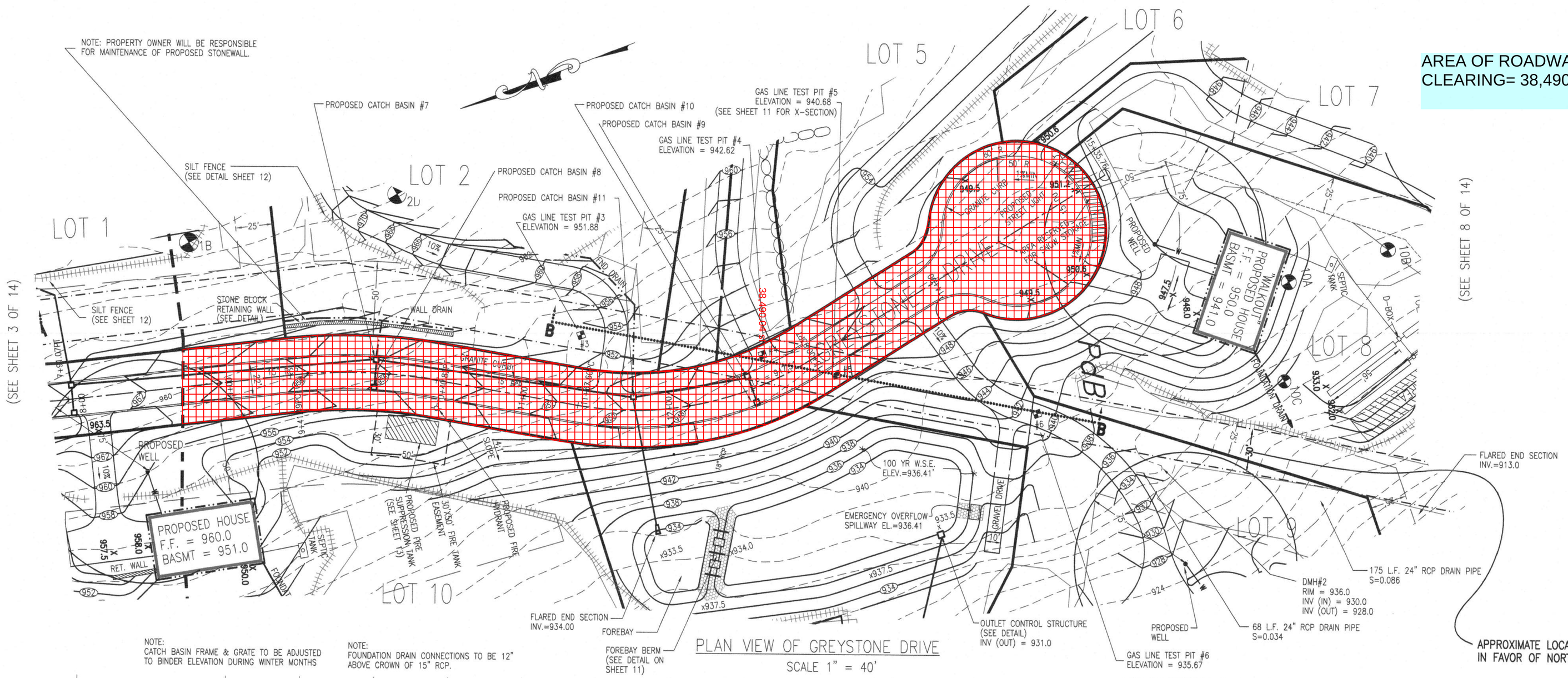
PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 – fax. (508) 636-2477

SHEET NAME:
LOCATION MAP

DRAWN BY:	P.W.M.	
CHECKED BY:	A.J.H.	
DATE:	NOV 5, 2004	
REVISIONS		
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
DWG. No. SHEET1.DWG		SCALE: 1" = 200'
JOB No. 1499-01		SHEET No. 1 OF 14

AREA OF ROADWAY TREE CLEARING= 38,490.04 SF

NOTE: PROPERTY OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF PROPOSED STONEWALL.

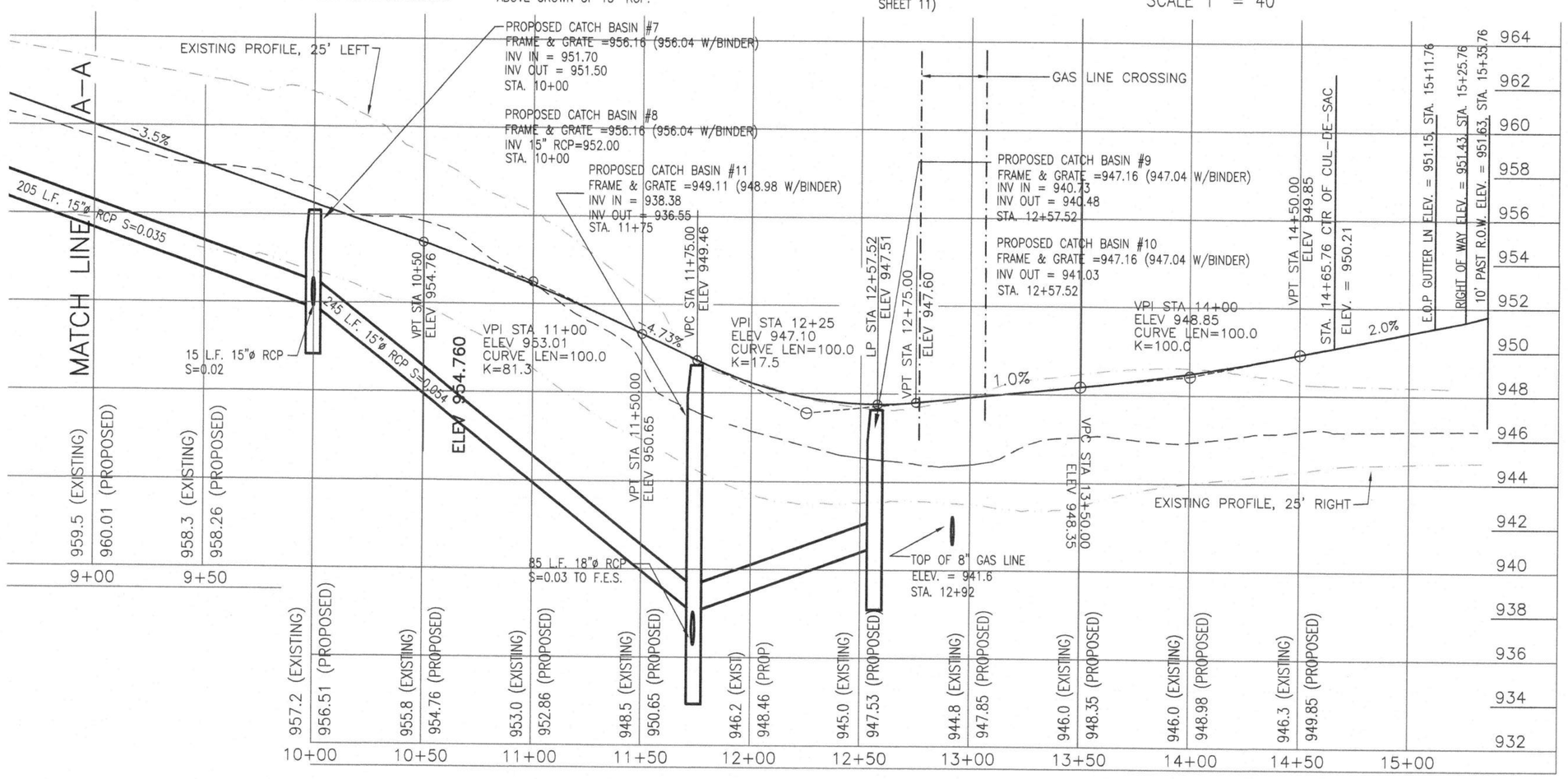


PLAN VIEW OF GREYSTONE DRIVE

SCALE 1" = 40'

NOTE: CATCH BASIN FRAME & GRATE TO BE ADJUSTED TO BINDER ELEVATION DURING WINTER MONTHS

NOTE: FOUNDATION DRAIN CONNECTIONS TO BE 12" ABOVE CROWN OF 15" RCP.



PROFILE VIEW OF GREYSTONE DRIVE

HORIZONTAL SCALE: 1"=40'
VERTICAL SCALE: 1"=4'

POND OUTLET CONTROL STRUCTURE DETAIL

(NOT TO SCALE)

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPERTY LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- STORMWATER DRAIN
- WATERLINE
- SOIL TEST HOLE
- UTILITY POLE (WITH NUMBER)
- LIMIT OF WETLAND
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- CENTERLINE STATION
- SILT FENCE

APPROVED BY THE PLANNING & ZONING COMMISSION:

FINAL APPROVAL: _____ CHAIRMAN

DATE: _____ EXPIRATION DATE: _____

CONDITIONAL APPROVAL: _____ CHAIRMAN

DATE: _____ EXPIRATION DATE: _____

2/10/06

ALAN J. HEUREUX, PROFESSIONAL ENGINEER
CT. REG. No. 16861
DATE

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE-NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 - fax. (508) 636-2477

SHEET NAME:
PLAN & PROFILE (STA. 8+00-14+65)

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499-01	SCALE: 1" = 40'
JOB No.	SHEET No. 4 OF 14

Lot 1 is approximately 2.946 acres and heavily wooded. The slope on the property where the proposed septic is located is around 12.5%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", rock refusal was encountered in some holes, but no water was observed in any of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 104 feet long, 6 foot wide which provides 1227.2 sq. ft. or 26 – 8' chambers (required =1000 sq. ft.). With this design no curtain drain will be provided so the house footing drain will discharge away from the system.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 26 (24" to restrictive area @ 12.5%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

26 X 2.0 X 2.0 = 104 Ft. required spread

The proposed well's radius of 75' is located in the houses side yard and does not encroach on any leaching system (existing or proposed).

Lot 2 is approximately 2.429 acres and heavily wooded. The slope on the property where the proposed septic is located is around 10%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", rock refusal was encountered in some holes, water was also observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 28 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided with the house footing drain connecting into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (24" to restrictive area @ 10%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses rear yard and does not encroach on any leaching system (existing or proposed).

HOLE # 1A ROOTS @ 26" inches
HOLE DEPTH : 60" WATER @ n/a inches
rock refusal @60" MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 7" inches
BROWN SILTY LOAM 7–26" inches
GLACIAL TILL 26–60" inches
(MODERATE)

HOLE # 1B ROOTS @ 30" inches
HOLE DEPTH:64" WATER @ n/a inches
rock refusal @64" MOTTLING @ ----- inches

TOPSOIL/ROOT MATERIAL 6" inches
BROWN SILTY LOAM 6–30" inches
GLACIAL TILL 30–64" inches
(MODERATE TO HARD)

HOLE #1C ROOTS @ n/a inches
HOLE DEPTH: 36" WATER @ n/a inches
rock refusal @36" MOTTLING @ n/a inches
hole FAILED
DEPTH
TOPSOIL/ROOT MATERIAL n/a inches
BROWN SILTY LOAM n/a inches
GLACIAL TILL n/a inches
(MODERATE TO HARD)

HOLE # 1D ROOTS @ 24" inches
HOLE DEPTH : 58" WATER @ n/a inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 7" inches
BROWN SILTY LOAM 7–24" inches
BROWN SANDY TILL 24–58" inches
(MODERATE TO HARD)

SOIL TYPES

Lg.....Leicester, Ridgebury and Whitman very sandy fine loams.
PbB.....Paxton fine sandy loam 3 to 8 percent slopes.
PdB.....Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC.....Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD.....Paxton very stony fine sandy loam, 15 to 35 percent slopes.

40 0 20 40 80
SCALE: 1 INCH = 40 FEET

NOTE: (LOT 1 & 2)
TENNESSEE GAS PIPELINE CONSTRUCTION SUPERVISOR MR. AL GRAZIA STATES THAT ALONG CROSS COUNTRY PIPE LINES THE BACKFILL USED AFTER THE PIPELINE IS INSTALLED IS THE NATURAL MATERIAL THAT WAS EXCAVATED.

NOTES:

1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE–INCH STONE OR ONE–INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE–INCH BROKEN STONE OR ONE–INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%–100%
#40	10%–50%
#100	0%–20%
#200	0%–5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8–12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

HOLE # 2A ROOTS @ n/a inches
HOLE DEPTH:36" WATER @ n/a inches
rock refusal @36" MOTTLING @ n/a inches
hole FAILED
DEPTH
TOPSOIL/ROOT MATERIAL n/a inches
BROWN SILTY LOAM n/a inches
GLACIAL TILL n/a inches
(MODERATE TO HARD)

HOLE # 2B ROOTS @ 24" inches
HOLE DEPTH:54" WATER @ 36" inches
rock refusal @54" MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–6" inches
BROWN SILTY LOAM 6–26" inches
GLACIAL TILL 26–54" inches
(MODERATE TO HARD)

HOLE # 2C ROOTS @ 24" inches
HOLE DEPTH : 53" WATER @ ----- inches
rock refusal @53" MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 7" inches
RED BROWN SILTY LOAM 7–26" inches
GLACIAL TILL 26–53" inches
(MODERATE)

HOLE # 2D ROOTS @ n/a inches
HOLE DEPTH: 36: WATER @ n/a inches
rock refusal @36" MOTTLING @ n/a inches
hole FAILED
DEPTH
TOPSOIL/ROOT MATERIAL n/a inches
BROWN SILTY LOAM n/a inches
GLACIAL TILL n/a inches
(MODERATE TO HARD)

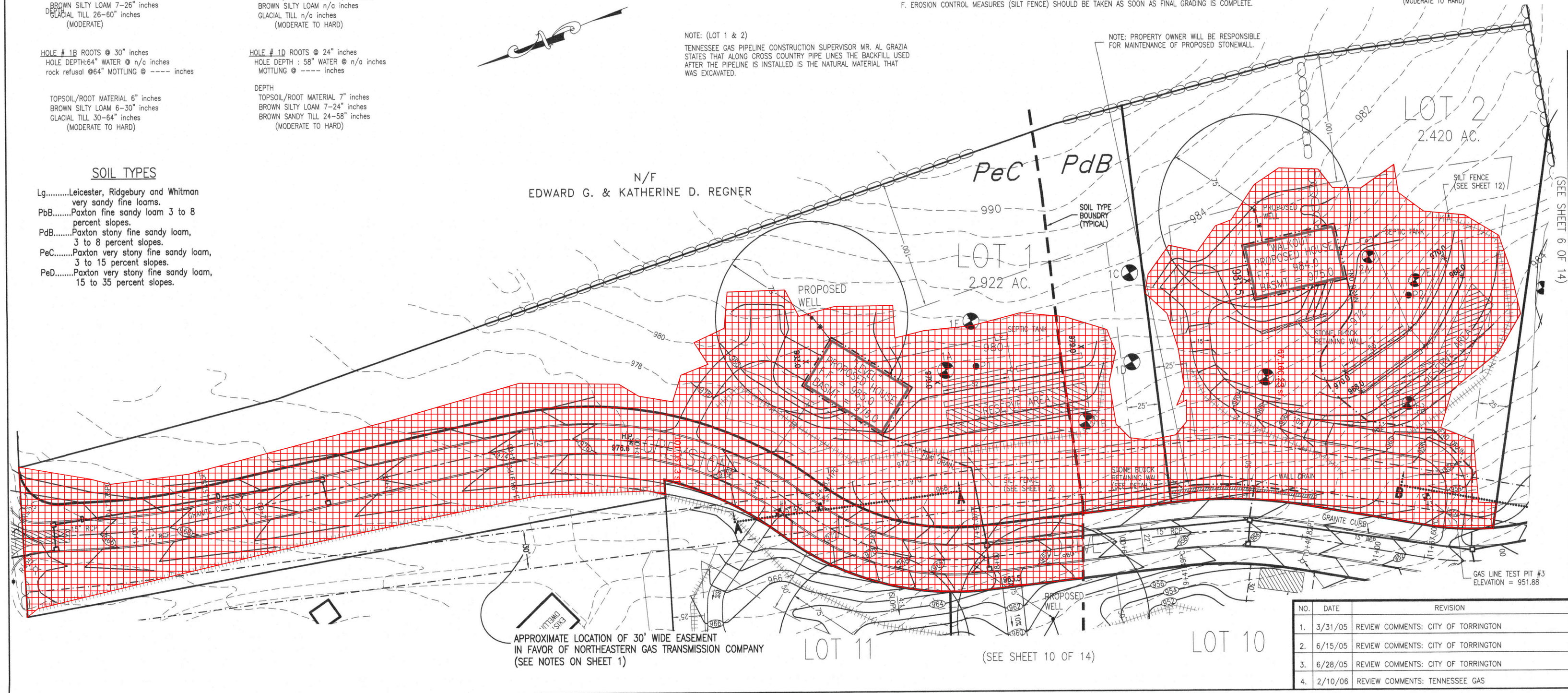
HOLE # 2E ROOTS @ 28" inches
HOLE DEPTH: 54" WATER @ ----- inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 8" inches
BROWN SILTY LOAM 8–30" inches
GLACIAL TILL 30–54" inches
(MODERATE TO HARD)

LEGEND

- 90 EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPERTY LINE
- CB EXISTING CATCH BASIN
- CB#2 PROPOSED CATCH BASIN
- DMH EXISTING DRAIN MANHOLE
- D STORMWATER DRAIN
- W WATERLINE
- SB SOIL TEST HOLE
- U/P#40/473 UTILITY POLE (WITH NUMBER)
- LIMIT OF WETLAND (W.L. #10)
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- 1+00 CENTERLINE STATION
- SILT FENCE

NOTE: PROPERTY OWNER WILL BE RESPONSIBLE FOR MAINTENANCE OF PROPOSED STONEWALL.



AREA OF ROADWAY & LOT 1&2 TREE CLEARING= 168,217.53 SF

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

2/10/06
ALAN J. HEUREUX, DATE
PROFESSIONAL ENGINEER
CT. REG. No. 16861

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE–NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

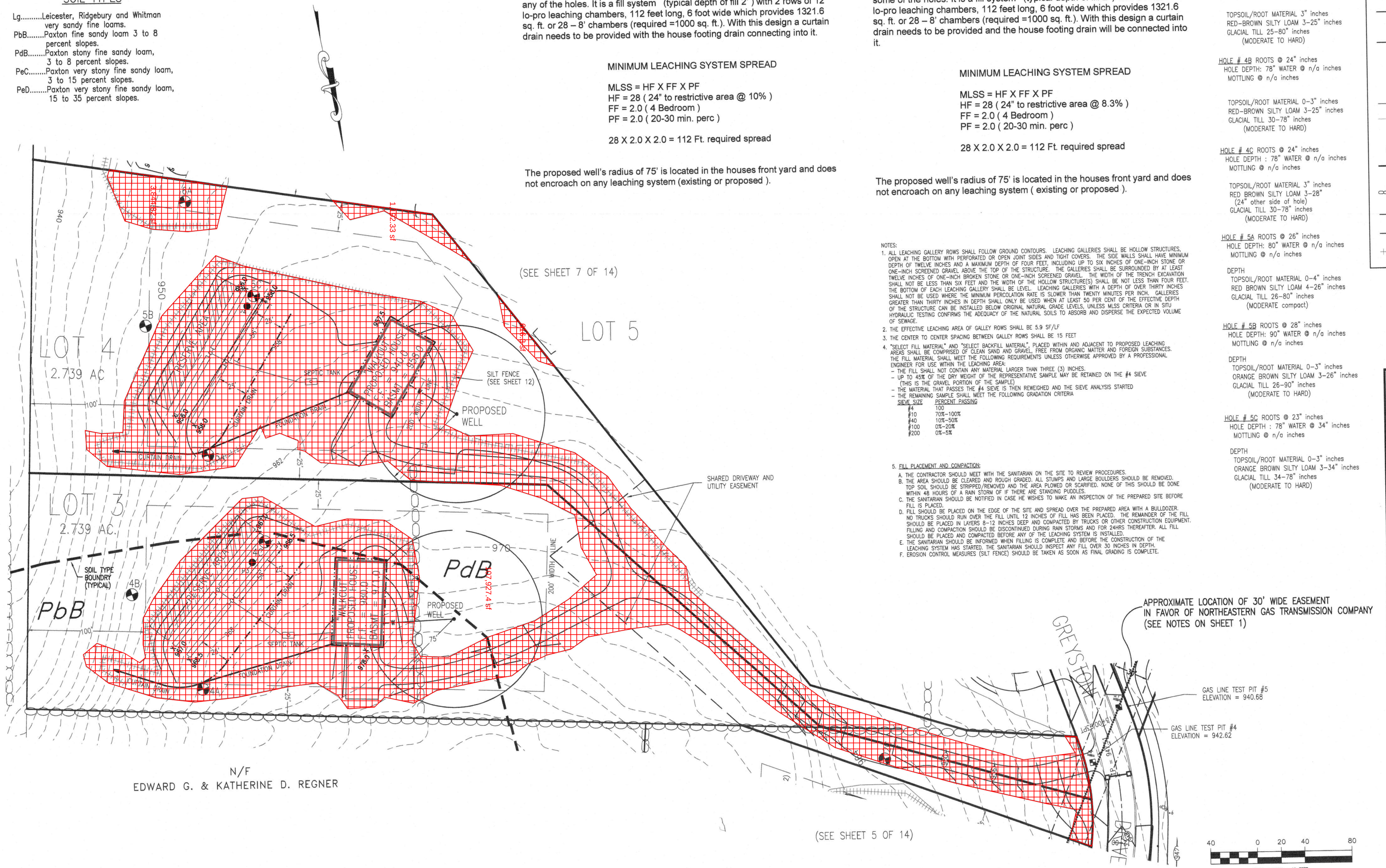
PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636–5905 – fax. (508) 636–2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 1 & 2)

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499–01	SCALE: 1" = 40'
JOB No.	SHEET No. 5 OF 14

SOIL TYPES

Lg.....Leicester, Ridgebury and Whitman very sandy fine loams.
PbB.....Paxton fine sandy loam 3 to 8 percent slopes.
PdB.....Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC.....Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD.....Paxton very stony fine sandy loam, 15 to 35 percent slopes.



AREA OF LOT 3&4 TREE CLEARING= 113,580.85 SF

Lot 3 is approximately 2.625 acres and heavily wooded. The slope on the property where the proposed septic is located is around 10%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", no water was observed in any of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 28 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided with the house footing drain connecting into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (24" to restrictive area @ 10%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

Lot 4 is approximately 2.535 acres and heavily wooded. The slope on the property where the proposed septic is located is around 8.3%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 28 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided and the house footing drain will be connected into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (24" to restrictive area @ 8.3%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

NOTES:
1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE-INCH STONE OR ONE-INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE-INCH BROKEN STONE OR ONE-INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%-100%
#40	10%-50%
#100	0%-20%
#200	0%-5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8-12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

HOLE # 4A ROOTS @ 20" inches
HOLE DEPTH: 80" WATER @ n/a inches
MOTTLING @ ----- inches

TOPSOIL/ROOT MATERIAL 3" inches
RED-BROWN SILTY LOAM 3-25" inches
GLACIAL TILL 25-80" inches
(MODERATE TO HARD)

HOLE # 4B ROOTS @ 24" inches
HOLE DEPTH: 78" WATER @ n/a inches
MOTTLING @ n/a inches

TOPSOIL/ROOT MATERIAL 0-3" inches
RED-BROWN SILTY LOAM 3-25" inches
GLACIAL TILL 30-78" inches
(MODERATE TO HARD)

HOLE # 4C ROOTS @ 24" inches
HOLE DEPTH : 78" WATER @ n/a inches
MOTTLING @ n/a inches

TOPSOIL/ROOT MATERIAL 3" inches
RED BROWN SILTY LOAM 3-28"
(24" other side of hole)
GLACIAL TILL 30-78" inches
(MODERATE TO HARD)

HOLE # 5A ROOTS @ 26" inches
HOLE DEPTH: 80" WATER @ n/a inches
MOTTLING @ n/a inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-4" inches
RED BROWN SILTY LOAM 4-26" inches
GLACIAL TILL 26-80" inches
(MODERATE compact)

HOLE # 5B ROOTS @ 28" inches
HOLE DEPTH: 90" WATER @ n/a inches
MOTTLING @ n/a inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-3" inches
ORANGE BROWN SILTY LOAM 3-26" inches
GLACIAL TILL 26-90" inches
(MODERATE TO HARD)

HOLE # 5C ROOTS @ 23" inches
HOLE DEPTH : 78" WATER @ 34" inches
MOTTLING @ n/a inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-3" inches
ORANGE BROWN SILTY LOAM 3-34" inches
GLACIAL TILL 34-78" inches
(MODERATE TO HARD)

LEGEND

- 90 — EXISTING CONTOUR
- (90) — PROPOSED CONTOUR
- 932 — PROPOSED SPOT ELEVATION
- PL — PROPERTY LINE
- CB — EXISTING CATCH BASIN
- CB#2 — PROPOSED CATCH BASIN
- DMH — EXISTING DRAIN MANHOLE
- D — STORMWATER DRAIN
- W — WATERLINE
- 5B — SOIL TEST HOLE
- U/P#40/473 — UTILITY POLE (WITH NUMBER)
- W.L. #10 — LIMIT OF WETLAND
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- 1+00 — CENTERLINE STATION
- SILT FENCE

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

2/10/06
ALAN J. HEUREUX, DATE
PROFESSIONAL ENGINEER
CT. REG. No. 16861

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE-NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

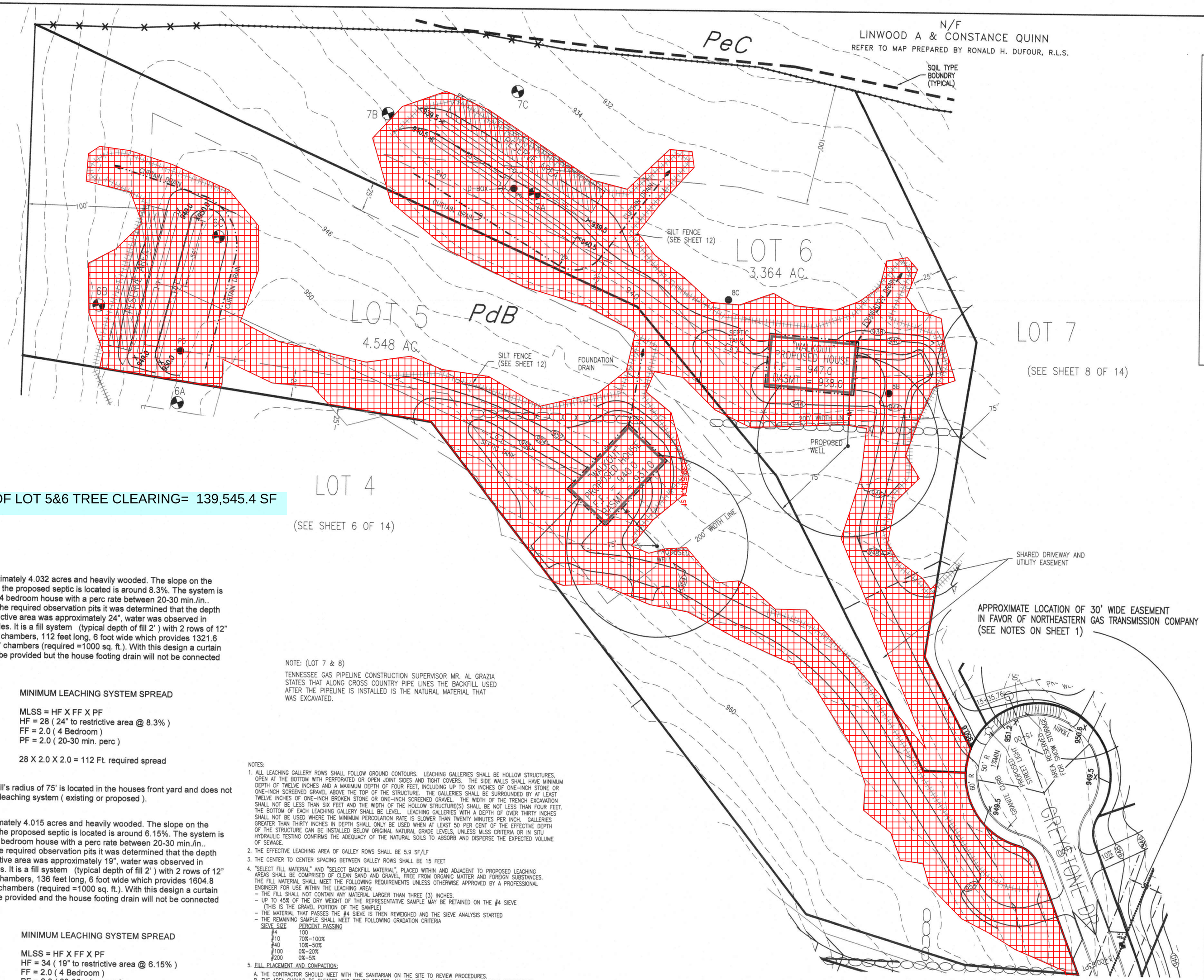
APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 – fax. (508) 636-2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 3 & 4)

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499-01	SCALE: 1" = 40'
JOB No.	SHEET No. 6 OF 14



SOIL TYPES

Lg.....Leicester, Ridgebury and Whitman very sandy fine loams.
PbB.....Paxton fine sandy loam 3 to 8 percent slopes.
PdB.....Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC.....Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD.....Paxton very stony fine sandy loam, 15 to 35 percent slopes.

HOLE # 6A ROOTS @ 20" inches
HOLE DEPTH: 93" WATER @ 38" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
ORANGE BROWN SILTY LOAM 3–24" inches
GLACIAL TILL 24–93" inches
(MODERATE TO HARD)

HOLE # 6B ROOTS @ 20" inches
HOLE DEPTH: 92" WATER @ 32" inches
MOTTLING @ n/a inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
ORANGE BROWN SILTY LOAM 4–21" inches
GLACIAL TILL 21–92" inches
(MODERATE TO HARD)

HOLE # 6C ROOTS @ 24" inches
HOLE DEPTH : 90" WATER @ 24" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
ORANGE BROWN SILTY LOAM 3–19" inches
GLACIAL TILL 19–90" inches
(MODERATE TO HARD)

HOLE # 7A ROOTS @ 19" inches
HOLE DEPTH: 82" WATER @ 19" inches
MOTTLING @ 19" inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–2" inches
BROWN SILTY LOAM 2–19" inches
GLACIAL TILL 19–82" inches
(MODERATE TO HARD)

HOLE # 7B ROOTS @ 20" inches
HOLE DEPTH: 85" WATER @ n/a inches
MOTTLING @ n/a inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–20" inches
GLACIAL TILL 24–85" inches
(MODERATE TO HARD)

HOLE # 7C ROOTS @ 20" inches
HOLE DEPTH : 85" WATER @ 17" inches
water starting to seep MOTTLING @ 20" inches in at 72"
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
ORANGE BROWN SILTY LOAM 3–20" inches
GLACIAL TILL 20–85" inches
(MODERATE TO HARD)

Lot 5 is approximately 4.032 acres and heavily wooded. The slope on the property where the proposed septic is located is around 8.3%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 28 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided but the house footing drain will not be connected into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (24" to restrictive area @ 8.3%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

Lot 6 is approximately 4.015 acres and heavily wooded. The slope on the property where the proposed septic is located is around 6.15%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 19", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 136 feet long, 6 foot wide which provides 1604.8 sq. ft. or 34 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided and the house footing drain will not be connected into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 34 (19" to restrictive area @ 6.15%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

34 X 2.0 X 2.0 = 136 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

NOTE: (LOT 7 & 8)

TENNESSEE GAS PIPELINE CONSTRUCTION SUPERVISOR MR. AL GRAZIA STATES THAT ALONG CROSS COUNTRY PIPE LINES THE BACKFILL USED AFTER THE PIPELINE IS INSTALLED IS THE NATURAL MATERIAL THAT WAS EXCAVATED.

NOTES:
1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE–INCH STONE OR ONE–INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE–INCH BROKEN STONE OR ONE–INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%–100%
#40	10%–50%
#100	0%–20%
#200	0%–5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8–12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

40 0 20 40 80
SCALE: 1 INCH = 40 FEET

LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPERTY LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- STORMWATER DRAIN
- WATERLINE
- SOIL TEST HOLE
- UTILITY POLE (WITH NUMBER)
- LIMIT OF WETLAND
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- CENTERLINE STATION
- SILT FENCE

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

ALAN J. HEUREUX, PROFESSIONAL ENGINEER
CT. REG. No. 16861
DATE 2/10/06

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE–NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

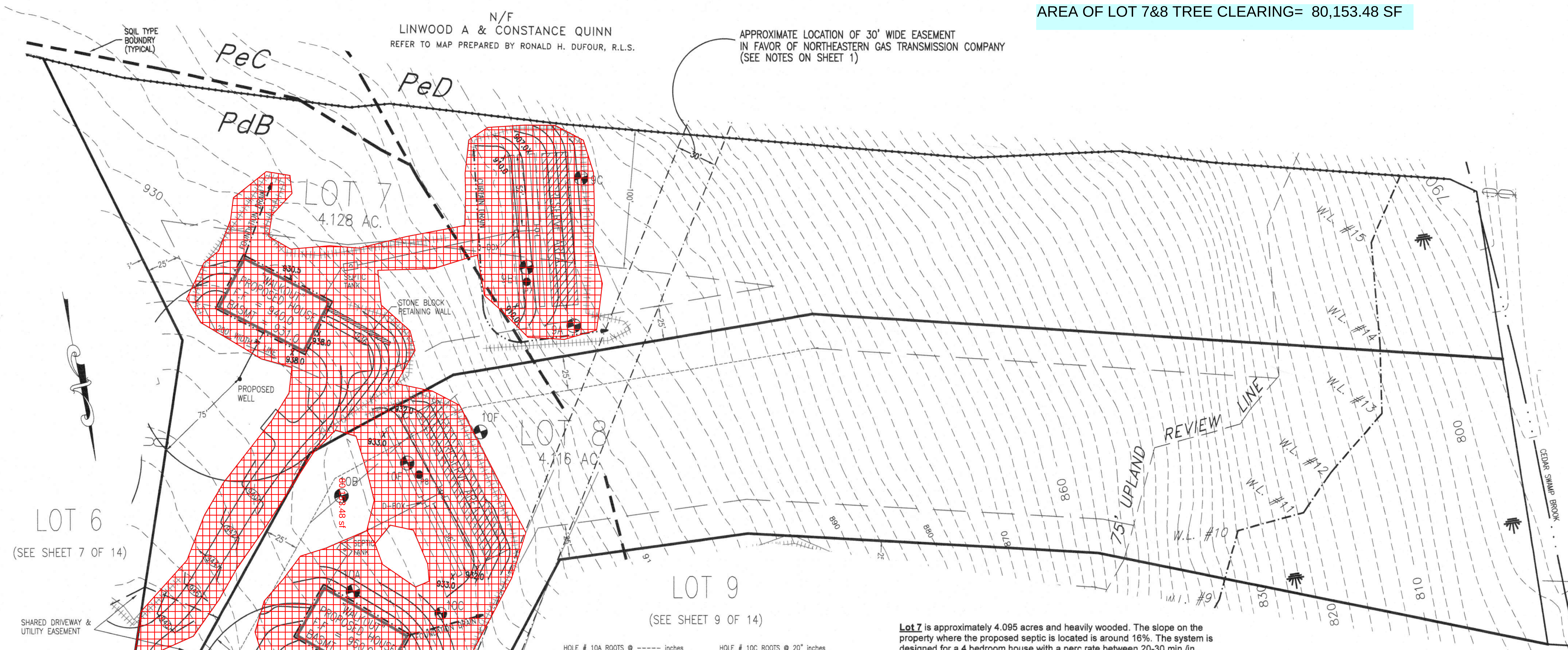
PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 – fax. (508) 636-2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 5 & 6)

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499–01	SCALE: 1" = 40'
JOB No.	SHEET No. 7 OF 14

AREA OF LOT 7&8 TREE CLEARING= 80,153.48 SF



LEGEND

- EXISTING CONTOUR
- PROPOSED CONTOUR
- PROPOSED SPOT ELEVATION
- PROPERTY LINE
- EXISTING CATCH BASIN
- PROPOSED CATCH BASIN
- EXISTING DRAIN MANHOLE
- STORMWATER DRAIN
- WATERLINE
- SOIL TEST HOLE
- U/P#40/473 UTILITY POLE (WITH NUMBER)
- W.L. #10 LIMIT OF WETLAND
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- 1+00 CENTERLINE STATION
- SILT FENCE

HOLE # 10A ROOTS @ ------ inches
HOLE DEPTH WATER @ ------ inches
LEDGE MOTTLING @ ------ inches
HOLE FAILED
DEPTH
TOPSOIL/ROOT MATERIAL ------ inches
BROWN SILTY LOAM ------ inches
GLACIAL TILL ------ inches
(MODERATE TO HARD)

HOLE # 10B ROOTS @ ------ inches
HOLE DEPTH WATER @ ------ inches
LEDGE 3.5' MOTTLING @ ------ inches
HOLE FAILED
DEPTH
TOPSOIL/ROOT MATERIAL ------ inches
BROWN SILTY LOAM ------ inches
GLACIAL TILL ------ inches
(MODERATE TO HARD)

HOLE # 10C ROOTS @ 20" inches
HOLE DEPTH : WATER @ ------ inches
rock refusal @60" MOTTLING @ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–20" inches
GLACIAL TILL 20–60" inches
(MODERATE TO HARD)

HOLE # 10E ROOTS @ 20" inches
HOLE DEPTH: 60" WATER @ ------ inches
rock refusal @60" MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–20" inches
GLACIAL TILL 20–60" inches
(MODERATE TO HARD)

HOLE # 10F ROOTS @ 20" inches
HOLE DEPTH: 28" WATER N/A
MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–21" inches
GLACIAL TILL 21–28" inches

HOLE # 8A ROOTS @ ------ inches
HOLE DEPTH WATER @ ------ inches
DIDN'T DIG MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL ------ inches
ORANGE BROWN SILTY LOAM ------ inches
GLACIAL TILL ------ inches
(MODERATE TO HARD)

HOLE # 8B ROOTS @ 23" inches
HOLE DEPTH: 74" WATER @ 52" SEEPING IN @ 20" inches
MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
ORANGE BROWN SILTY LOAM 3–20" inches
GLACIAL TILL 20–74" inches
(MODERATE TO HARD)

HOLE # 8C ROOTS @ 24" inches
HOLE DEPTH : 85" WATER @ 60" inches
water coming in @ 85" MOTTLING @ 26" inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–26" inches
GLACIAL TILL 26–85" inches
(MODERATE TO HARD)

HOLE # 9A ROOTS @ 24" inches
HOLE DEPTH: 64" WATER @ n/a inches
MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–24" inches
GLACIAL TILL 24–64" inches
(MODERATE)

HOLE # 9B ROOTS @ 24" inches
HOLE DEPTH: 64" WATER @ n/a inches
ledge @ 64" MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–6" inches
BROWN SILTY LOAM 6–26" inches
GLACIAL TILL 26–64" inches
(MODERATE TO HARD)

HOLE # 9C ROOTS @ 22" inches
HOLE DEPTH : 64" WATER @ 22" seeping in inches
rock refusal @64" MOTTLING @ ------ inches
DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–23" inches
GLACIAL TILL 23–64" inches
(MODERATE)

SOIL TYPES

Lg.........Leicester, Ridgebury and Whitman very sandy fine loams.
PbB........Paxton fine sandy loam 3 to 8 percent slopes.
PdB........Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC........Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD........Paxton very stony fine sandy loam, 15 to 35 percent slopes.

40 0 20 40 80
SCALE: 1 INCH = 40 FEET

Lot 7 is approximately 4.095 acres and heavily wooded. The slope on the property where the proposed septic is located is around 16%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 22", water was observed in some of the holes. Rock refusal was encountered in some holes but was at a depth not to hinder the system. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 104 feet long, 6 foot wide which provides 1227.2 sq. ft. or 26 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided and the house footing drain will not be connected into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 26 (22" to restrictive area @ 16%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

26 X 2.0 X 2.0 = 104 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

Lot 8 is approximately 4.226 acres and heavily wooded. The slope on the property where the proposed septic is located is around 11.4%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 20". Rock refusal was encountered in some holes but no water was observed in any of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 26 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain will be provided so the house footing drain will discharge away from the system.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (20" to restrictive area @ 11.4%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

NOTES:

1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE-INCH STONE OR ONE-INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE-INCH BROKEN STONE OR ONE-INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%–100%
#40	10%–50%
#100	0%–20%
#200	0%–5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8-12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: ______ CHAIRMAN
DATE: ______ EXPIRATION DATE: ______
CONDITIONAL APPROVAL: ______ CHAIRMAN
DATE: ______ EXPIRATION DATE: ______

2/10/06
DATE
ALAN J. HEUREUX,
PROFESSIONAL ENGINEER
CT. REG. No. 16861

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE-NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS /\ LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 – fax. (508) 636-2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 7 & 8)

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499-01	SCALE: 1" = 40'
JOB No.	SHEET No. 8 OF 14

AREA OF LOT 9 TREE CLEARING= 54,905.16 SF

Lot 9 is approximately 4.654 acres and heavily wooded. The slope on the property where the proposed septic is located is around 14.3%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 20", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 26 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided and the house footing drain will be connected into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (20" to restrictive area @ 14.3%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

HOLE # 11A ROOTS @ ----- inches
HOLE DEPTH WATER @ ----- inches
DID NOT DIG MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL ----- inches
BROWN SILTY LOAM ----- inches
GLACIAL TILL ----- inches
(MODERATE TO HARD)

HOLE # 11B ROOTS @ 20" inches
HOLE DEPTH : 64" WATER @ 20" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-3" inches
BROWN SILTY LOAM 3-21" inches
GLACIAL TILL 21-64" inches
(HARD)

HOLE # 11C ROOTS @ 22" inches
HOLE DEPTH: 72" WATER @ 72" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-4" inches
BROWN SILTY LOAM 4-27" inches
GLACIAL TILL 27-72" inches
(MODERATE TO HARD)

HOLE # 12A ROOTS @ 26" inches
HOLE DEPTH: 75" WATER @ ----- iches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-4" inches
BROWN SILTY LOAM 4-29" inches
GLACIAL TILL 29-75" inches
(MODERATE TO HARD)

HOLE # 12B ROOTS @ 26" inches
HOLE DEPTH : 72" WATER @ ----- inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-6" inches
BROWN SILTY LOAM 6-28" inches
GLACIAL TILL 28-72" inches
(MODERATE TO HARD)

HOLE # 12C ROOTS @ 23" inches
HOLE DEPTH: 66" WATER @ ----- inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0-4" inches
BROWN SILTY LOAM 4-26" inches
GLACIAL TILL 26-66" inches
(MODERATE TO HARD)

LIST OF AVAILABLE PLANTS FOR STORMWATER DETENTION POND

1) ACER CAMPESTRE – HEDGE MAPLE: 25'-35'HT, SPREAD EQUAL TO HEIGHT, FAIRLY SLOW GROWING, YELLOW FALL COLOR.
2) ACER RUBRUM – RED MAPLE: 40-60'HT, SPREAD EQUAL TO HEIGHT, ORANGE TO RED FALL COLOR
3) CERICIDIPHYLLUM JAPONICUM – KATSURATREE: 40-60'HT, 20-30' SPREAD, APRICOT-ORANGE FALL COLOR.
4) CLADRASTIS LUTEA – AMERICAN YELLOWWOOD: 30-50'HT, EQUAL SPREAD, WHITE FRAGRANT FLOWERS IN MAY, YELLOW FALL COLOR
5) KOELREUTERIA PANICULATA – PANICLED GOLDENRAINTREE: 30-40'HT, EQUAL SPREAD. 12" LONG YELLOW FLOWERS IN JULY, YELLOW FALL COLOR.
6) QUERCUS IMBRICARIA – SHINGLE OAK: 50-60'HT EQUAL OR GREATER SPREAD, RUSSET-RED FALL COLOR. (FOR LARGER LOTS)
7) SOPHORA JAPONICA – JAPANESE PAGODATREE: 50-70'HT EQUAL SPREAD, WHITE FRAGRANT FLOWERS 6-12" LONG IN JULY INTO AUGUST, LITTLE FALL COLOR.
8) SORBUS ALNIFOLIA – KOREAN MOUNTAINASH: 40-50' HT BY 20-30' SPREAD, WHITE FLOWERS IN MAY ORANGE TO RED PERSISTING FRUIT SEPT-OCT, YELLOW-ORANGE FALL COLOR.
9) TILIA CORDATA 'GREENSPIRE' – GREENSPIRE LITTLELEAF LINDEN: 60-70'HT, 1/2 SPREAD, YELLOW FRAGRANT FLOWERS IN JUNE-JULY, YELLOW FALL COLOR.

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON

NOTES:
1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE-INCH STONE OR ONE-INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE-INCH BROKEN STONE OR ONE-INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%-100%
#40	10%-50%
#100	0%-20%
#200	0%-5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8-12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

SOIL TYPES

Lg.....Leicester, Ridgebury and Whitman very sandy fine loams.
PbB.....Paxton fine sandy loam 3 to 8 percent slopes.
PdB.....Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC.....Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD.....Paxton very stony fine sandy loam, 15 to 35 percent slopes.

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

ALAN J. HEUREUX, PROFESSIONAL ENGINEER
CT. REG. No. 16861
4/24/06 DATE

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE-NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18 IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

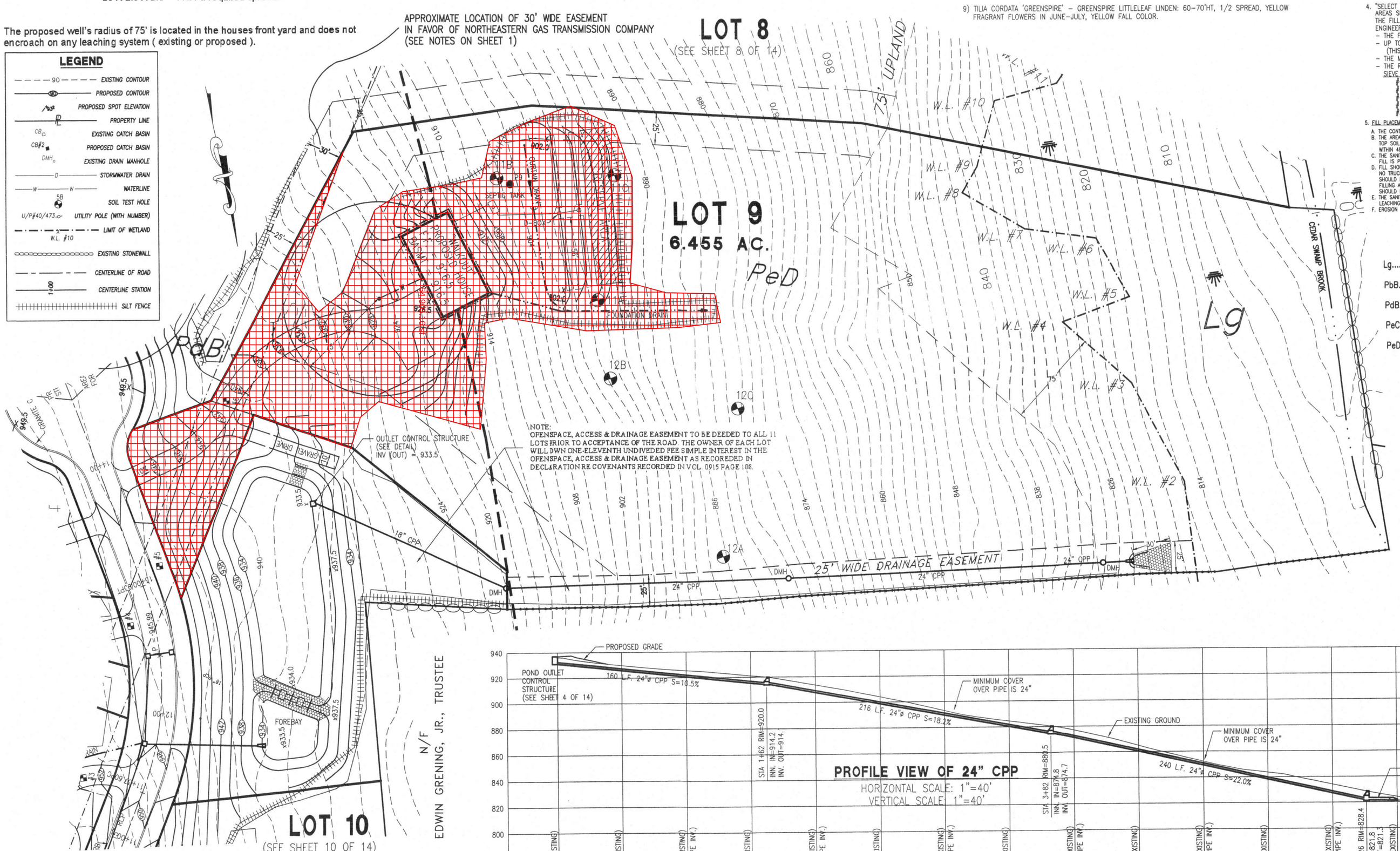
APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636-5905 - fax. (508) 636-2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 9 & 10)

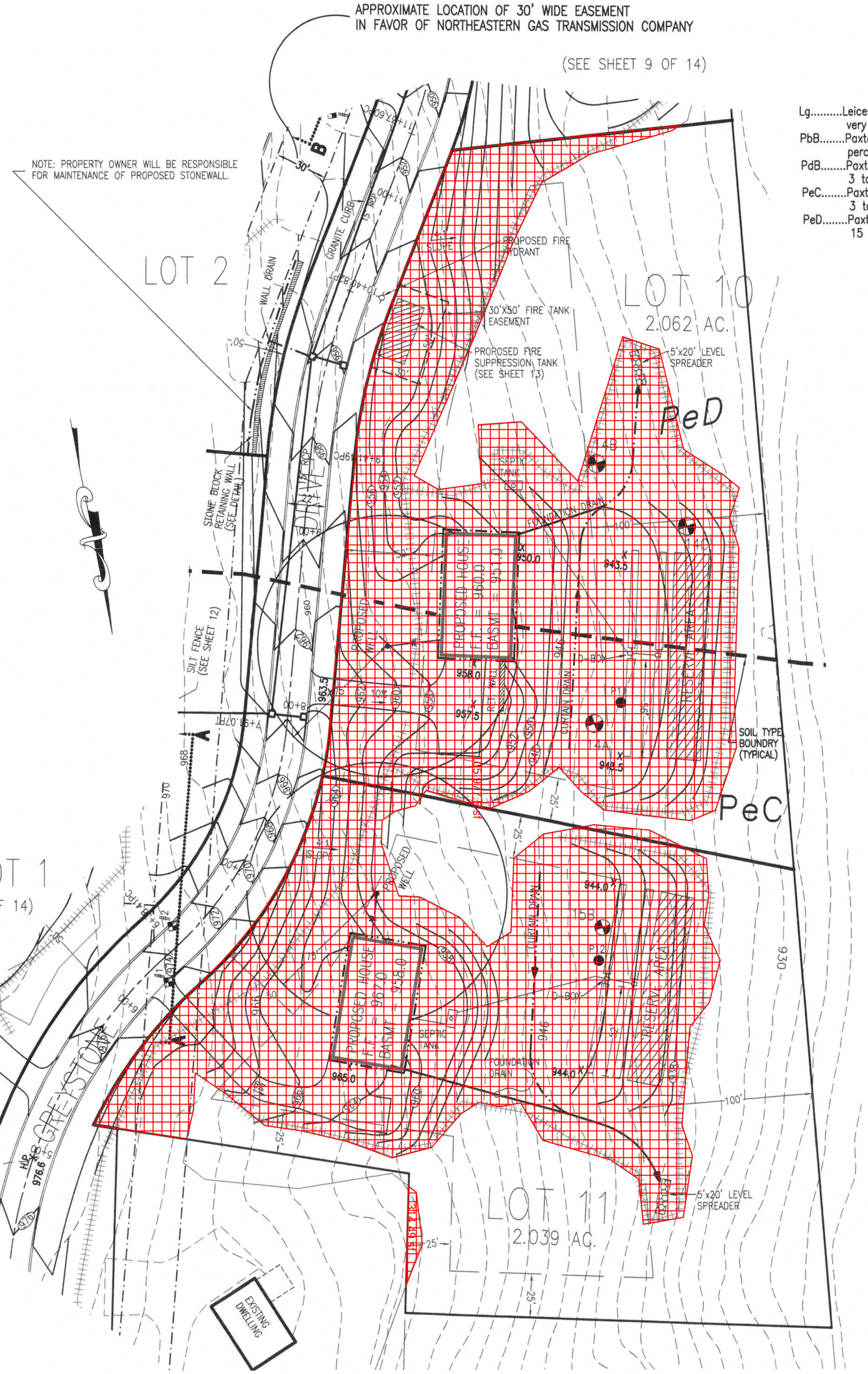
DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499-01	SCALE: 1" = 40'
JOB No.	SHEET No. 9 OF 14

LEGEND
EXISTING CONTOUR
PROPOSED CONTOUR
PROPOSED SPOT ELEVATION
PROPERTY LINE
EXISTING CATCH BASIN
PROPOSED CATCH BASIN
EXISTING DRAIN MANHOLE
STORMWATER DRAIN
WATERLINE
SOIL TEST HOLE
UTILITY POLE (WITH NUMBER)
LIMIT OF WETLAND
EXISTING STONEWALL
CENTERLINE OF ROAD
CENTERLINE STATION
SILT FENCE



Gas Line Notes:

1. Prior to any planned excavation or heavy equipment activity on or near the gas line easement, the developer must contact Mr. Al Garcia, Tennessee Gas Pipeline Company (Tennessee) at (413)786-1933, he will require information relative to scheduling inspection services associated with this project. A Tennessee representative must standby when work is occurring on or near the gas line easement.
2. The developer must notify Dig Safe (888)344-7233 prior to any excavation or grading activity within the gas line easement area.
3. The Tennessee Gas Pipeline Company requires that all utilities be located on this plan. All utility lines require a minimum of 18" clearance between existing gas pipeline and utility lines without weaving between lines. Contact Mr. Al Garcia (413)786-1933 prior to the actual utility crossing.
4. A profile of the pipeline is required showing all grade changes, road crossings, and utilities inside the gas line easement. Test pits may need to be completed for this information, Contact Mr. Al Garcia (413) 786-1933.
5. Any blasting within 300 feet of the easement will require prior written approval by Tennessee. Please allow a minimum of four weeks for review and approval of all blasting plans. These plans must meet applicable Federal, State and Local regulations. Tennessee Gas Pipeline will require and provide a licensed blasting inspector when blasting occurs within 150' of the easement. All costs associated with inspection will be billed back to the owner or developer.
6. The owner or developer must excavate the pipeline the entire length of the proposed road and driveway crossings in order to check bedding and coating. This work must be done under Tennessee Gas Pipeline Company direct supervision and by a contractor who meets their requirements. If new bedding is required within this project, it will be at the owner/developer's expense.
7. All of Tennessee Gas Pipeline's safety guidelines will be followed. If these requirements cannot be met, Tennessee Gas Pipeline will reserve the right to complete this project with their alliance contractor and all related costs will be billed back to the owner or developer. If developer/owner desires to use their own contractor, the following conditions must be met.
   - Contractor must have in place prior to any work on the Pipeline easement a minimum of $5 million liability insurance.
   - A drug testing policy to be approved by Tennessee Gas Pipeline Company.
   - Each operator must be qualified and maintain a valid heavy equipment operator licensed in the state of the proposed project, if applicable.
   - Contractor must meet the Department of Transportation Operation Qualification to work on high pressure natural gas pipelines prior to any work within the pipeline easement.
8. No trees shall be planted within the confines of the right of way and easements. Trees within this area are considered any tree that can grow to a height of (5) feet or more. This would include such species such as fir, pine, arborvitae, hemlock, maple, rhododendron, birch, fruit trees, and willow, etc. Such trees inhibit access to the pipeline and their roots can damage the pipeline. Shrubs that do not reach a mature height of greater than five (5) feet may be located within Tennessee Gas Pipeline's right of way provided they are not planted within (10) feet of the pipeline. Note that under the terms of the right of way agreements, Tennessee Gas Pipeline still can reserve the right to cut or remove any trees and or shrubs that interfere with the operation and maintenance of its facilities.
9. No structures above ground and below ground, dwellings, trees, septic systems, leach fields, swimming pools, water impoundment, catch basins, sewer manholes or other obstructions may be erected or placed upon the Company's permanent right of way and easement area. Such obstructions interfere with their ability to access, patrol, operate and maintain the pipeline facilities.
10. All areas of the easement disturbed by the owner/developer's activities must be stabilized as soon as possible. The area shall be limed, fertilized seeded and mulched if necessary. Thereafter, and until re-vegetation has been established, any areas that show signs of erosion shall be immediately repaired.
11. Any associated cost Tennessee may have regarding the project outside our normal course of business will be 100% reimbursable by the owner/developer. The normal services typically cover items such as, line location, site inspection less than 2 hours, and project review. Contact Tennessee Gas Pipeline Company (Tennessee) at (413)786-1933 for normal services.
12. Compliance with these plans does not suggest or imply that the owner/developer, contractors, consultants or any associated party is relieved of any responsibility or liability in the event Tennessee's pipelines or facilities are damaged in any way before, during or after the construction of the project. Tennessee will hold all parties responsible for the costs incurred for any breach of the pipeline of facility integrity.



SOIL TYPES

Lg.....Leicester, Ridgebury and Whitman very sandy fine loams.
PbB.....Paxton fine sandy loam 3 to 8 percent slopes.
PdB.....Paxton stony fine sandy loam, 3 to 8 percent slopes.
PeC.....Paxton very stony fine sandy loam, 3 to 15 percent slopes.
PeD.....Paxton very stony fine sandy loam, 15 to 35 percent slopes.

HOLE # 14A ROOTS @ 21" inches
HOLE DEPTH: 75" WATER @ 22" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–3" inches
BROWN SILTY LOAM 3–21" inches
GLACIAL TILL 21–75" inches
(MODERATE TO HARD)

HOLE # 14B ROOTS @ 22" inches
HOLE DEPTH : 85" WATER @ 22" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–24" inches
GLACIAL TILL 24–85" inches
(MODERATE TO HARD)

HOLE # 14C ROOTS @ 24" inches
HOLE DEPTH: 92" WATER @ ----- inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–25" inches
GLACIAL TILL 25–92" inches
(MODERATE TO HARD)

HOLE # 15A ROOTS @ 26" inches
HOLE DEPTH: 98" WATER @ 24" seeping inches
water @ 24" MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–28" inches
GLACIAL TILL 28–98" inches
(MODERATE TO HARD)

HOLE # 15B ROOTS @ 19" inches
HOLE DEPTH : 65" WATER @ 32" inches
MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–23" inches
GLACIAL TILL 23–65" inches
(MODERATE TO HARD)

HOLE # 15C ROOTS @ 20" inches
HOLE DEPTH: 74" WATER @ seeping in @ 20" inches
HOLE FAILED MOTTLING @ ----- inches

DEPTH
TOPSOIL/ROOT MATERIAL 0–4" inches
BROWN SILTY LOAM 4–21" inches
GLACIAL TILL 21–74" inches
(MODERATE TO HARD)

Lot 10 is approximately 2.004 acres and heavily wooded. The slope on the property where the proposed septic is located is around 12.3%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 22", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 112 feet long, 6 foot wide which provides 1321.6 sq. ft. or 28 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided with the house footing drain connecting into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 28 (22" to restrictive area @ 12.3%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

28 X 2.0 X 2.0 = 112 Ft. required spread

The proposed well's radius of 75' is located in the houses front yard and does not encroach on any leaching system (existing or proposed).

Lot 11 is approximately 2.355 acres and heavily wooded. The slope on the property where the proposed septic is located is around 12.5%. The system is designed for a 4 bedroom house with a perc rate between 20-30 min./in.. When digging the required observation pits it was determined that the depth to the soil restrictive area was approximately 24", water was observed in some of the holes. It is a fill system (typical depth of fill 2') with 2 rows of 12" lo-pro leaching chambers, 104 feet long, 6 foot wide which provides 1227.2 sq. ft. or 26 – 8' chambers (required =1000 sq. ft.). With this design a curtain drain needs to be provided with the house footing drain connecting into it.

MINIMUM LEACHING SYSTEM SPREAD

MLSS = HF X FF X PF
HF = 26 (24" to restrictive area @ 12.5%)
FF = 2.0 (4 Bedroom)
PF = 2.0 (20-30 min. perc)

26 X 2.0 X 2.0 = 104 Ft. required spread

The proposed well's radius of 75' is located in the houses side yard and does not encroach on any leaching system (existing or proposed).

NOTES:

1. ALL LEACHING GALLERY ROWS SHALL FOLLOW GROUND CONTOURS. LEACHING GALLERIES SHALL BE HOLLOW STRUCTURES, OPEN AT THE BOTTOM WITH PERFORATED OR OPEN JOINT SIDES AND TIGHT COVERS. THE SIDE WALLS SHALL HAVE MINIMUM DEPTH OF TWELVE INCHES AND A MAXIMUM DEPTH OF FOUR FEET, INCLUDING UP TO SIX INCHES OF ONE–INCH STONE OR ONE–INCH SCREENED GRAVEL ABOVE THE TOP OF THE STRUCTURE. THE GALLERIES SHALL BE SURROUNDED BY AT LEAST TWELVE INCHES OF ONE–INCH BROKEN STONE OR ONE–INCH SCREENED GRAVEL. THE WIDTH OF THE TRENCH EXCAVATION SHALL NOT BE LESS THAN SIX FEET AND THE WIDTH OF THE HOLLOW STRUCTURE(S) SHALL BE NOT LESS THAN FOUR FEET. THE BOTTOM OF EACH LEACHING GALLERY SHALL BE LEVEL. LEACHING GALLERIES WITH A DEPTH OF OVER THIRTY INCHES SHALL NOT BE USED WHERE THE MINIMUM PERCOLATION RATE IS SLOWER THAN TWENTY MINUTES PER INCH. GALLERIES GREATER THAN THIRTY INCHES IN DEPTH SHALL ONLY BE USED WHEN AT LEAST 50 PER CENT OF THE EFFECTIVE DEPTH OF THE STRUCTURE CAN BE INSTALLED BELOW ORIGINAL NATURAL GRADE LEVELS, UNLESS MLSS CRITERIA OR IN SITU HYDRAULIC TESTING CONFIRMS THE ADEQUACY OF THE NATURAL SOILS TO ABSORB AND DISPERSE THE EXPECTED VOLUME OF SEWAGE.
2. THE EFFECTIVE LEACHING AREA OF GALLEY ROWS SHALL BE 5.9 SF/LF
3. THE CENTER TO CENTER SPACING BETWEEN GALLEY ROWS SHALL BE 15 FEET
4. "SELECT FILL MATERIAL" AND "SELECT BACKFILL MATERIAL", PLACED WITHIN AND ADJACENT TO PROPOSED LEACHING AREAS SHALL BE COMPRISED OF CLEAN SAND AND GRAVEL, FREE FROM ORGANIC MATTER AND FOREIGN SUBSTANCES. THE FILL MATERIAL SHALL MEET THE FOLLOWING REQUIREMENTS UNLESS OTHERWISE APPROVED BY A PROFESSIONAL ENGINEER FOR USE WITHIN THE LEACHING AREA:
   - THE FILL SHALL NOT CONTAIN ANY MATERIAL LARGER THAN THREE (3) INCHES.
   - UP TO 45% OF THE DRY WEIGHT OF THE REPRESENTATIVE SAMPLE MAY BE RETAINED ON THE #4 SIEVE (THIS IS THE GRAVEL PORTION OF THE SAMPLE)
   - THE MATERIAL THAT PASSES THE #4 SIEVE IS THEN REWEIGHED AND THE SIEVE ANALYSIS STARTED
   - THE REMAINING SAMPLE SHALL MEET THE FOLLOWING GRADATION CRITERIA

SIEVE SIZE	PERCENT PASSING
#4	100
#10	70%–100%
#40	10%–50%
#100	0%–20%
#200	0%–5%

5. FILL PLACEMENT AND COMPACTION:
   A. THE CONTRACTOR SHOULD MEET WITH THE SANITARIAN ON THE SITE TO REVIEW PROCEDURES.
   B. THE AREA SHOULD BE CLEARED AND ROUGH GRADED. ALL STUMPS AND LARGE BOULDERS SHOULD BE REMOVED. TOP SOIL SHOULD BE STRIPPED/REMOVED AND THE AREA PLOWED OR SCARIFIED. NONE OF THIS SHOULD BE DONE WITHIN 48 HOURS OF A RAIN STORM OF IF THERE ARE STANDING PUDDLES.
   C. THE SANITARIAN SHOULD BE NOTIFIED IN CASE HE WISHES TO MAKE AN INSPECTION OF THE PREPARED SITE BEFORE FILL IS PLACED.
   D. FILL SHOULD BE PLACED ON THE EDGE OF THE SITE AND SPREAD OVER THE PREPARED AREA WITH A BULLDOZER. NO TRUCKS SHOULD RUN OVER THE FILL UNTIL 12 INCHES OF FILL HAS BEEN PLACED. THE REMAINDER OF THE FILL SHOULD BE PLACED IN LAYERS 8–12 INCHES DEEP AND COMPACTED BY TRUCKS OR OTHER CONSTRUCTION EQUIPMENT. FILLING AND COMPACTION SHOULD BE DISCONTINUED DURING RAIN STORMS AND FOR 24HRS THEREAFTER. ALL FILL SHOULD BE PLACED AND COMPACTED BEFORE ANY OF THE LEACHING SYSTEM IS INSTALLED.
   E. THE SANITARIAN SHOULD BE INFORMED WHEN FILLING IS COMPLETE AND BEFORE THE CONSTRUCTION OF THE LEACHING SYSTEM HAS STARTED. THE SANITARIAN SHOULD INSPECT ANY FILL OVER 30 INCHES IN DEPTH.
   F. EROSION CONTROL MEASURES (SILT FENCE) SHOULD BE TAKEN AS SOON AS FINAL GRADING IS COMPLETE.

NO.	DATE	REVISION
1.	3/31/05	REVIEW COMMENTS: CITY OF TORRINGTON
2.	6/15/05	REVIEW COMMENTS: CITY OF TORRINGTON
3.	6/28/05	REVIEW COMMENTS: CITY OF TORRINGTON
4.	2/10/06	REVIEW COMMENTS: TENNESSEE GAS

40 0 20 40 80
SCALE: 1 INCH = 40 FEET

LEGEND

- 90 — EXISTING CONTOUR
- 90 — PROPOSED CONTOUR
- 93² — PROPOSED SPOT ELEVATION
- PL — PROPERTY LINE
- CB — EXISTING CATCH BASIN
- CB#2 — PROPOSED CATCH BASIN
- DMH — EXISTING DRAIN MANHOLE
- D — STORMWATER DRAIN
- W — WATERLINE
- 5B — SOIL TEST HOLE
- U/P#40/473 — UTILITY POLE (WITH NUMBER)
- W.L. #10 — LIMIT OF WETLAND
- EXISTING STONEWALL
- CENTERLINE OF ROAD
- 1+00 — CENTERLINE STATION
- SILT FENCE

APPROVED BY THE PLANNING & ZONING COMMISSION:
FINAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____
CONDITIONAL APPROVAL: _____ CHAIRMAN
DATE: _____ EXPIRATION DATE: _____

ALAN J. HEUREUX, PROFESSIONAL ENGINEER
CT. REG. No. 16861
DATE 2/10/06

THIS PLAN SHALL NOT BE ASSUMED TO BE VALID UNLESS IT CONTAINS AN ORIGINAL SIGNATURE AND PROFESSIONAL SEAL OF THE ABOVE–NAMED PERSON.

TITLE:
SUBDIVISION PLAN OF "GREYSTONE"
MAP 253, BLOCK 3, LOTS 10 & 18
IN TORRINGTON, CONNECTICUT

OWNER:
GEORGE B. RUWET
1712 TORRINGFORD ST
TORRINGTON, CT

APPLICANT:
WATERS DEVELOPMENT GROUP, LLC

PREPARED BY:
Boucher & Heureux, Inc.
CIVIL ENGINEERS / LAND SURVEYORS
648 AMERICAN LEGION HIGHWAY, SUITE ONE
WESTPORT, MASSACHUSETTS 02790
tel. (508) 636–5905 – fax. (508) 636–2477

SITE DEVELOPMENT, SOIL EROSION AND SEDIMENT CONTROL PLAN (LOTS 11 & 12)

DRAWN BY:	P.W.M.
CHECKED BY:	A.J.H.
DATE:	NOVEMBER 5, 2004
DWG. No. 1499–01	SCALE: 1" = 40'
JOB No.	SHEET No. 10 OF 14

AREA OF LOT 10&11 TREE CLEARING= 106,291.99 SF