

**MOUNTAINSIDE WOODS – SUBDIVISION PUBLIC HEARING (CONTINUED)**  
**PUBLIC COMMENTS AND RESPONSES**  
**PART II**

On October 25, 2012, the Town of Lloyd Planning Board continued the public hearing on the subdivision for the Mountainside Woods project. The following is a list of the individuals who spoke at that public hearing.

John Indelicato – 51 New Paltz Road  
Jess Puccio - 23 Reservoir Road  
Frank Sammartano – 25 Hilltop Lane  
Joseph LaFiandra – 80 Sunnybrook Circle  
Mary Phillips – 88 Sunnybrook Circle  
Thomas Kiss – 17 Hilltop Lane  
Erin Quinn – reporter for the New Paltz Times  
Bob Baron – 30 Reservoir Road  
Joan Taranta – 88 Sunnybrook Circle  
Lou Herman – New Paltz Road  
Rose Senaga  
Jim Gescheidle– 21 Hilltop Lane  
Joanne Lesser – 35 Brescia Boulevard  
Diane Passante – Boyds Lane  
Maria Sammartano – 25 Hilltop Lane  
Donna Deprese – 449 North Elting Corners Road  
Dan Bailey – Sunnybrook Circle  
Jacob Nedumthakady – 15 Hilltop Lane

Many of the comments made at the October 25, 2012 public hearing were previously raised at the September 27, 2012 meeting including comments about traffic, drainage, school impacts, fiscal impacts and the density of the development. These issues are addressed in a document entitled “Public Comment and Responses” which was prepared by the applicant, reviewed by the Planning Board, posted on the Town of Lloyd website and distributed at the Planning Board’s meeting on October 25, 2012. In addition, some of the comments made at the October 25, 2012 public hearing were answered directly by Planning Board members or their consultants.

The following new comments have been organized in the same way as the previous document discussed above. All comments have been grouped into categories that correspond to the topics analyzed during the environmental review process. Where the Planning Board directed the applicant to reconsider certain issues which were raised at the September 27, 2012 public hearing, responses are included herein. The comments and responses have been numbered so that they continue from the previous document. Accordingly, the previous Public Comments and Responses document ended with Comment/Response #36. The first Comment/Response in this document begins with Comment/Response #37.

Where appropriate, some of the comments are summarized or paraphrased. Attribution for the comment is included. In addition to the comments made at the public hearing, written comments were received from Joseph LaFiandra via an email dated October 24, 2012, which is also attached.

To facilitate the reader's understanding of where specific comments are addressed, hand written notations have been added to the transcript of the October 25, 2012 hearing, a copy of which is attached, cross-referencing the comment and the corresponding response.

Please note, where lot numbers are referenced below, they refer to the proposed subdivision plan as revised by the changes indicated herein.

## **PROJECT DESIGN AND LAYOUT:**

**Comment #37:** Several comments and concerns were raised at both the September and October meetings regarding providing buffering for existing residences including:

- Several residents expressed a desire to see buffering between the proposed homes and the existing residences on Hilltop Lane.
- Thomas Kiss inquired if the homes on the cul-de-sac nearest to Hilltop could be flipped to have fewer homes on the side near Hilltop.
- Frank Sammartano expressed concern regarding the proposed gravel parking area behind his house. He indicated that it cannot be blocked from view by fencing as it is in the Central Hudson right of way.
- Mary Phillips raised a concern about the lack of buffering between the proposed homes and Sunnybrook.

**Response #37:** The applicant has considered all the above comments and offers the following as a comprehensive approach to addressing these issues

First, in the Hilltop Lane area, in order to achieve a greater buffer between the existing homes and the proposed homes on Lots 48 – 57, proposed Road H will be realigned slightly to the northwest which creates deeper lots and allows for more distance between the proposed and existing homes. Moreover, the garages have been moved on proposed Lots 48 to 57 so that they are closer to Road H. These modifications result in a minimum distance of 40' between the shared property line and any proposed home or garage. In addition, the applicant is proposing to construct a 6 foot high board on board privacy fence along the rear of proposed Lots 48 through 59. The fence will be located 5 feet from the shared property line, on the proposed home lots. The finished side of the fence will face the rear of the homes that front Hilltop Lane. The new homeowners will be required to maintain the fence. Evergreen trees (Arborvitaes) will also be planted between the fence and the property line every 10 feet in order to ultimately shield the fence from view. Arborvitaes were selected as they provide a visually appealing landscape buffer yet require little maintenance. Exhibit A, attached, depicts the proposed changes to the plan in this area.

The applicant is also proposing to relocate the seasonal parking area from the eastern side of Road H, near lot 48 and the rear of the home located at 25 Hilltop Lane (the Sammartano property), to the western side of Road H, along the gravel drive which is proposed to service the stormwater pond. The new proposed gravel parking area will accommodate 14 parking spots and will serve as an additional snow storage area, when needed. The relocated parking area is also depicted on Exhibit A. The relocation of this parking area would have made proposed Lot #68 in its current location too narrow as a result this lot has been relocated to an area between proposed Lots 127 and 128 on Road B.

In reconfiguring the area near the existing homes on Hilltop Lane, the applicant examined the possibility of flipping some of the homes to the other side of Road H, however, this would prevent the reconfiguration of the road and relocation of the parking lot. The applicant believes that the proposed modifications best address the issues raised at the public hearings.

To address the buffering issue near the Sunnybrook homes, the applicant is proposing to realign Road B so that there is a minimum of 80 feet between the rear of the Sunnybrook building and the rear lot lines for proposed Lots 133 to 136. This buffer area will be

incorporated into the open space that will be dedicated to the Town. There will be a temporary disturbance to this area to install necessary stormwater infrastructure; however, tree clearing will be minimized to the greatest extent practicable. Exhibit B, attached, depicts the proposed changes to the plan in this area.

**Comment #38:** John Indelicato: Notes that his property abuts the project on 4 sides and would like to see some buffering: The Planning Board directed the applicant to take another look at providing buffering in this area.

**Response #38:** Attached Exhibit C shows the project with respect to the boundaries of Mr. Indelicato's property. The project site shares four boundary lines with Mr. Indelicato's property, all on the north side of the project. As indicated on the attached exhibit, three of the shared boundaries abut those areas of the site that are proposed as open space. The only proposed development that is near Mr. Indelicato's property is the rear of Lots #102, #103 and #104. The applicant is proposing to install a 6 foot tall board on board privacy fence along the entire length of the rear of lot 103 and along portions of lot 104, as indicated on the attached Exhibit C.

**Comment #39:** John Indelicato: Roads need to be 30 feet wide.

**Response #39:** Section 89-19 of the Town Code, as amended in 2012, sets forth the construction specifications for roadways. The proposed roads in the Mountainside Woods project are classified as "local residential roads" which require a pavement width of 26 feet for streets with curbs. The project's roads are proposed with curbs and are 26 feet wide. The proposed roads meet all additional current highway specifications.

**Comment #40:** John Indelicato: Raised an issue regarding the ownership of an adjacent parcel, tax lot 87.4-3-13.

**Response #40:** The tax lot in question is not part of this application. Information regarding the ownership of the parcel was provided to the Planning Board and the Town Planning Board attorney.

## **CONSTRUCTION AND OPERATION:**

**Comment #41:** The Planning Board directed the applicant to reexamine the proposed phases as well as the order of the phases.

**Response #41:** The proposed phasing plan has been modified so that the first phase includes the Vista Drive Extension, the main entry traffic circle, Road H from the traffic circle to Road I and Road I. Lots 1 through 47 and lots 68 through 84 (a total of 64 homes), which lie within these road boundaries, will be built as part of the first phase. The stormwater detention basin at the end of the Road B will also be constructed as part of the first phase. The second phase will include lots 125 to 141, a total of 17 homes. The third phase will include Roads A & C and lots 85 to 124 and 142 to 162, a total of 61 homes and the fourth phase will include lots 48 to 67, a total of 20 homes. Exhibit D, attached, depicts the proposed phasing plan as revised.

**Comment #42:** Erin Quinn: Will the phases be a condition of approval?

**Response #42:** Yes.

**Comment #43:** Louis Herman: Will the developer be putting up a bond to cover damage to other homes, especially with regard to blasting?

**Response #43:** The blaster must be licensed by New York State and will be required to maintain liability insurance that protects against damage to adjacent homes. Appendix C1 of the DEIS and the Subdivision Plans both contain the protocol that must be completed by the blaster before, during and after blasting.

## **WATER RESOURCES:**

**Comment #44:** John Indelicato: The run-off from the site will be sent to his property and increase his flooding problems.

**Response #44:** The proposed development includes a drainage system and stormwater pollution prevention program (SWPPP) to properly manage and direct runoff from the site to a constructed system. The constructed system will consist of individual lot and overall site grading that will direct stormwater runoff to a series of catchbasins and piping located in the proposed streets. The piping will convey collected stormwater runoff to basins and ponds proposed as part of the project to control the rate of flow and quality of water leaving the overall site. The proposed series of catchbasins, piping and ponds/basins are based on engineering calculations, which were reviewed by the Town's consulting engineer on behalf of the Planning Board to ensure the system will be sufficient to prevent off-site runoff problems. The drainage system is shown on the project plans; and will be constructed in phases to handle site runoff during construction and after site construction is complete.

The project engineers have calculated that under current conditions runoff from 92.55 acres of the project site flows to Mr. Indelicato's property, approximately 80% of which (74.54 acres) is from the slope of Illinois Mountain. After the project's proposed drainage plan is implemented, 86.72 acres of the site will ultimately flow to the on-site stream, resulting in a net decrease of storm water peak flow from the site to his property. It is very important to note that, as indicated above, the majority of the runoff which currently flows to the on-site stream and then to Mr. Indelicato's property is from that part of the project site which lies to the west of the stream bed and which will remain open space. All of this land will be dedicated to the Town and the applicant is not proposing to construct any buildings on this portion of the project site.

To the east of the stream bed, where the dwelling units are proposed, under current conditions runoff from 18.05 acres flows to the on-site stream. Under the proposed drainage plan, the runoff from 6 of those acres will be collected in the on-site stormwater drainage system and routed to the detention basin on the northeast of the site, which discharges to an area near the rail trail, southeast of Mr. Indelicato's property and behind lots 130-132. Accordingly, the peak rate of runoff which now occurs will be reduced.

At the September and October public hearings on the proposed subdivision, Mr. Indelicato commented that his property regularly floods under existing conditions. At the September meeting, he stated "One of my concerns is the stream that comes through this proposed project eventually comes into my property. Last year it washed my lane out three times .... From 2004 up until recently that lane has been washed out at least eight times at the cost of \$5,000 to \$7,000 to repair it. This is the water that comes down from those reservoirs that comes through my property and the stream actually overflows its banks." In response to Mr. Indelicato's comments and concerns, and as was suggested by the Town Board liaison to the Planning Board, Michael Guerriero at the October 25, 2012 meeting, a site walk was conducted at Mr. Indelicato's property. November 2, 2012, the project engineer, Ross Winglovitz, P.E., along with the Planning Board's engineering consultant, Andrew Learn, the Planning Board's planner, Liz Axelson, Planning Board member Carl DiLorenzo, Town Board Member Michael Guerriero and Supervisor Paul Hansut conducted a site visit to examine the current conditions on Mr. Indelicato's property.

In total, a drainage area of approximately 580 acres of land discharges stormwater to the stream which runs through the project site and then through Mr. Indelicato's property. Mr. Indelicato is correct that the majority of the water that discharges into the stream and ultimately through his property is runoff from land owned by the Town, most of which is undeveloped and

includes Berean Park and the municipal reservoirs. As explained above, the proposed project will reduce the number of acres which naturally flow to the stream.

Mr. Indelicato's driveway, "the lane" as he refers to it, runs through the floodplain and crosses the stream. It was constructed with three 24 inch culverts which were installed beneath the driveway to accommodate the stream flow. These culverts have a combined capacity of approximately 125 cubic feet squared (cfs). In analyzing the 100 year storm event for this watershed, it is expected that over 500 cfs of runoff would be generated. Accordingly, the culverts installed by Mr. Indelicato on his property are one fourth the required size and it is understandable why his lane washes out, and property floods, even during much smaller rain events.

In summary, Mr. Indelicato's property currently floods because of runoff from undeveloped property that flows to a stream which runs through several properties, including the project site and Mr. Indelicato's, before exiting under the rail trail. The applicant is not proposing any development on the land west of the streambed, which runoff naturally flows to the stream, and the proposed project will not increase the peak stormwater flow to the stream.

It is the opinion of the applicant's engineers that Mr. Indelicato's flooding problems are due to the fact that his driveway was constructed in a floodplain and that the culverts which were installed by Mr. Indelicato to accommodate the stream flow are severely undersized. For these reasons, regardless of whether the Mountainside Woods project is built, this flooding condition is likely to continue. Please refer to Morris Associates Memorandum and attachments dated November 15, 2012.

**Comment #45:** John Indelicato: How are you going to retrieve the water from the homes that line the stream?

**Response #45:** The subdivision plan has been designed so that where at all possible, stormwater from the project site is directed away from the stream and into the stormwater management system. As discussed in Response 44 above, this has resulted in a net reduction in drainage area discharging to the stream and a reduction in peak stormwater flows to the stream.

**Comment #46:** Thomas Kiss: There is a depression on the adjacent property that holds water during rain events. If this is filled, will it cause flooding for him?

**Response #46:** When Mr. Kiss's home was built, the natural flow of drainage from the project site towards Hilltop Lane was blocked by creating a small depression on or near the common property line. Although this depression was not created by the applicant and even though the proposed drainage plan is designed to reduce the flow of stormwater to this area, the applicant has agreed to install a drain in the depression identified by Mr. Kiss to relieve the potential for water to collect.

## **UTILITIES:**

**Comment #47:** Joseph LaFiandra, written comment dated 10-24-12. His calculations indicate that the project engineers underestimated the average daily flow and peak flow for the sanitary sewer system and at the public hearing, he questioned whether a capacity analysis of the sewer system pipes had been conducted.

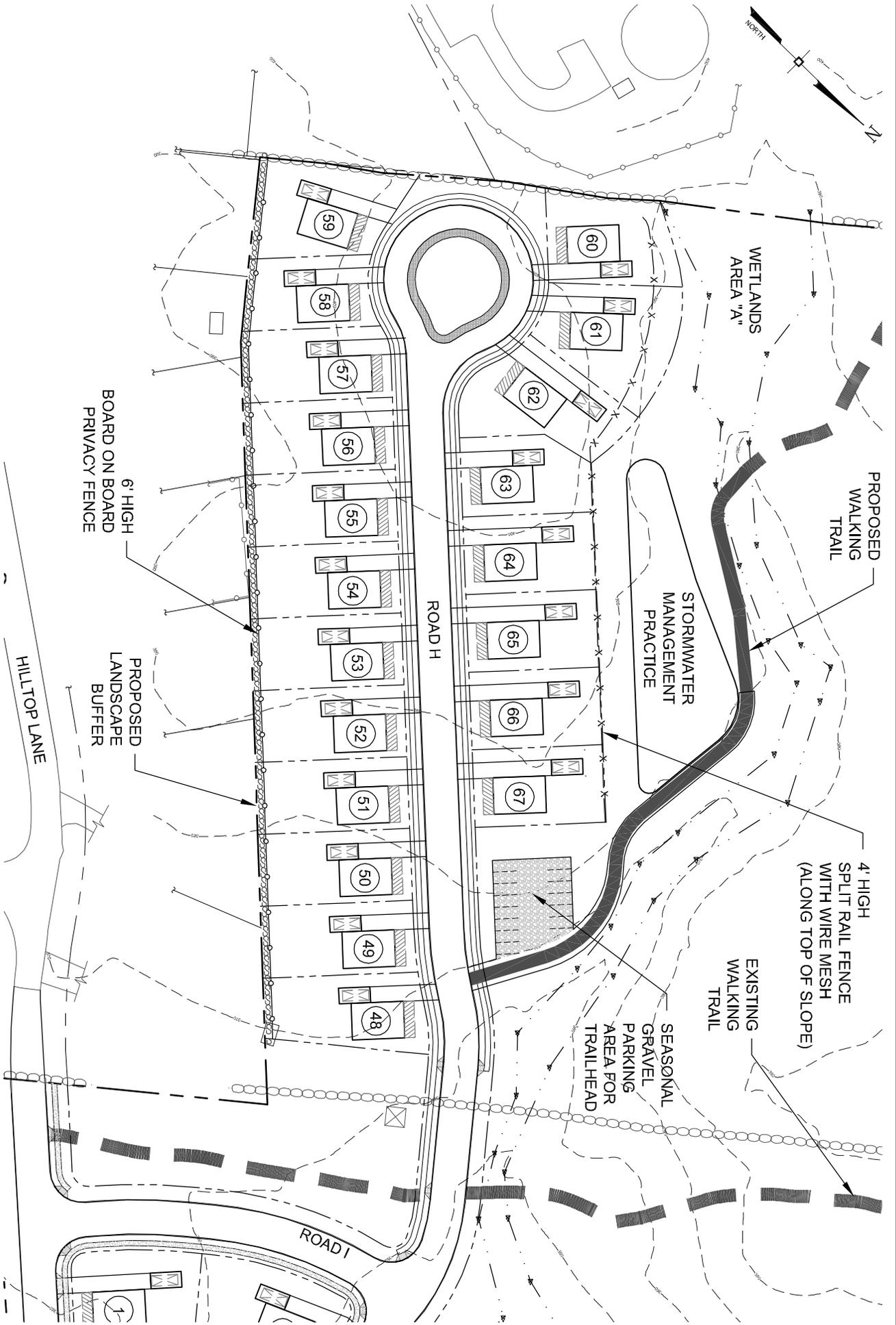
**Response #47:** As more fully explained in the attached letter prepared by Ross Winglovitz of Engineering Properties, PC, the proposed average daily flow rate for wastewater was calculated based on the NYSDEC Design Standard of 75 gallons per day per person times the population of the project. Calculating the total wastewater flow on a per person basis yields an estimated average daily flow rate of 37,275 gallons per day and is one of several methodologies acceptable to the NYS DEC, and it is the engineer's opinion that this flow estimate is accurate for the project.

After the SEQRA documents were accepted by the Town, the Town's consulting engineers, Morris Associates, requested that when preparing the engineer's report for the sewer district extension, the design flow be calculated based upon the number of 3 bedroom homes and 4 bedroom homes in the project, with a 20% deduction for water saving fixtures. This calculation yielded an estimated average daily flow of 53,340 gallons per day. The Town's engineers have confirmed that the design flow calculations presented by the Applicant's engineers are correct.

The capacity of an 8 inch sewer pipe with the flattest slope proposed for the site (0.5%) will flow approximately 550,000 gallons per day. The design requirement for sizing the pipes is that they must be able to accommodate twice the estimated average daily flow rate, which is 106,680 gallons. The proposed 8" pipes can accommodate more than 10 times the average daily flow rate.

**Comment #48:** James Gescheidle: How are the connections to other utilities to be made and is there capacity to service the development with broadband, cable and electric service?

**Response #48:** The project area is within the franchise service area of these utilities. The New York State Public Service Commission requires private utilities to provide adequate service to all residences within their service area. These service providers will not review our proposed plans until preliminary approval is obtained.



**EXHIBIT A**

**MOUNTAINSIDE WOODS  
VISTA DRIVE  
TOWN OF LLOYD  
ULSTER COUNTY, NEW YORK**

DATE: 11/08/12  
JOB #: 944.01  
SCALE: 1" = 100'

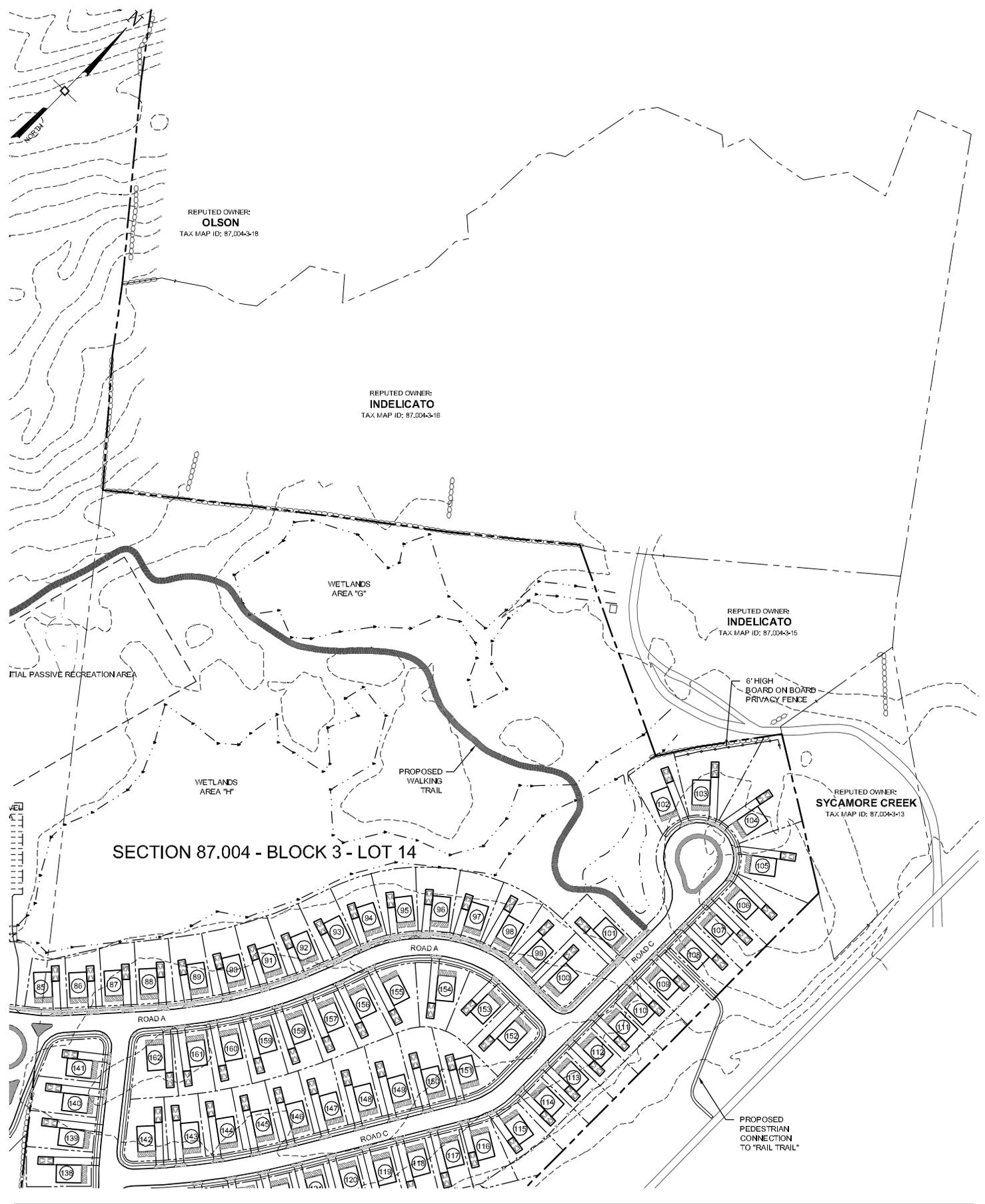
SHEET # **EX-A**

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Fx: (845) 457-1899



Drawing Name: Z:\944.01 - Mountainside.dwg, Subdivision Plan Alternate Layout.dwg, Date Printed: Nov 08, 2012, 1:27pm



**EXHIBIT C**

**MOUNTAINSIDE WOODS  
VISTA DRIVE  
TOWN OF LLOYD  
ULSTER COUNTY, NEW YORK**

DATE:  
**11/08/12**

SCALE:  
**1" = 200'**

JOB #  
**944.01**

SHEET #  
**EX-C**

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## Memorandum

## Morris Associates PLLC

**To:** Scott Saso  
Dave Barton  
Terresa Bakner  
Raymond Jurkowski  
Liz Axelson

**From:** Andy Learn, PE, Morris Associates



**Date:** October 25, 2012

**Re:** **Mountainside Woods Subdivision – LaFiandra Sewer Flow Analysis**  
**SBL: 87.4-5-1.2; 87.4-5-2; and 87.4-3-14**  
**Town of Lloyd, MA Project No. 210501.030**

Upon review of Mr. LaFiandra's Sanitary Sewer Flow Analysis, dated 10/24/12 I offer the following comments:

### **Average Daily Flow:**

Mr. LaFiandra's calculations quote flow rates from the NYSDEC Design Standards for Wastewater Treatment Works of 400 gallons/day for 3 bedroom homes and 475 gallons/day for 4 bedroom homes. Utilizing the number of proposed 3- and 4-bedroom homes in the Mountainside Woods Subdivision (137 and 25 respectively), Mr. LaFiandra's calculates an average daily flow rate of 66,675 gallons/day (gpd) for the entire site.

The flow rate calculated by Mr. LaFiandra coincides with the flow rate calculated by the applicant's engineer before application of a 20% reduction to account for water saving fixtures (53,340 gpd). According to the NYSDEC Design Standards included with Mr. LaFiandra's calculations, "Hydraulic loading...may be decreased by 20 percent in those installations serving premises equipped with certified water-saving plumbing fixtures." The use of the 20% reduction in daily flow rates is a commonly accepted practice and is approvable.

Mr. LaFiandra indicates that the average daily flow rate for the project of 37,275 gpd is from the SEQRA Findings Statement dated 4/18/10. This flow rate was superseded by a revised Engineering Report for Sewer District Extension prepared by Engineering Properties, dated last revised October 2011 that indicated an average daily flow rate of 53,340 gpd. The revised flow rate from the October 2011 Engineering Report is included in the DEIS as Appendix F and was utilized in the Map, Plan and Report for the Extension of the Highland Sewer District prepared by Morris Associates, dated October 2012.

**Peak Flow Analysis:**

A peak flow analysis was not prepared by the applicant's engineer. We recommend that they address this portion of Mr. LaFiandra's comment which would be subject to Town review. I do note that the peak flow calculated by Mr. LaFiandra is the Peak Hourly Flow rate. Typically sewer sizing calculations are based upon the Maximum Daily Flow rate, which is typically about ½ the Peak Hourly Flow rate (when calculated over a 24 hour period).

GIVEN: 137 3-BEDROOM UNITS  
25 4-BEDROOM UNITS  
498 TOTAL POPULATION

SOURCE: DEIS REV. 11/2/11, TABLE 3.5.1A PROJECTED  
POPULATION, P. 104 (ATTACHED)

DESIGN FLOW: 400 GAL./DAY FOR 3-BEDROOM HOME  
475 GAL./DAY FOR 4-BEDROOM HOME

SOURCE: NYSDEC DESIGN STANDARDS FOR WASTEWATER  
TREATMENT WORKS 1988, P. 12 (ATTACHED)

AVERAGE DAILY FLOW =  $(137 \times 400) + (25 \times 475)$   
= 66,675 GAL/DAY

SEQRA FINDINGS STATEMENT DATED 4/18/10, P. 9  
PREDICTED AVERAGE DAILY FLOW = 37,275 GAL/DAY  
(ATTACHED)

→ SEQRA FINDINGS STATEMENT UNDERESTIMATES  
AVERAGE DAILY FLOW BY 29,400 GAL/DAY

PEAK FLOW ANALYSIS —

PEAKING FACTOR FOR PREDICTED POPULATION OF 498  
 $= \frac{18 + \sqrt{0.498}}{4 + \sqrt{0.498}} = 3.98$

REF: RECOMMENDED STANDARDS FOR WASTEWATER  
FACILITIES, 2004 EDITION, P. 10-6 (ATTACHED)

PEAK FLOW FROM PROPOSED DEVELOPMENT

=  $3.98 \times 66,675 \text{ GAL/DAY}$   
= 265,367 GAL/DAY = 11,057 GAL/HR

→ DOCUMENTS (E.G. SEQRA FINDINGS STATEMENT  
& DEIS) FAIL TO ADDRESS IMPACT OF  
PEAK FLOW ON SANITARY SEWERS FROM  
PROPOSED & EXISTING USERS IN SANITARY  
DRAINAGE AREA

CAMPAD

# **Draft Environmental Impact Statement (DEIS)**

## **MOUNTAINSIDE WOODS**

Hilltop Lane and Vista Drive  
Town of Lloyd  
Ulster County, New York

Town of Lloyd Tax Lots  
87.004-3-14; 87.004-5-1.2; 87.004-5-2

Lead Agency:  
Town of Lloyd Town Board  
12 Church Street  
Highland, NY 12528

Contact Person:  
Raymond Costantino, Supervisor  
(845) 691-2144

Project Consultant and Contact Person:  
Ross Winglovitz, P.E.  
Engineering Properties, PC  
99 Clinton Street 2<sup>nd</sup> Floor  
Montgomery, New York 12549  
(845) 457-7727

Date of Submission: March 8, 2011; Revised November 2, 2011  
Date of Acceptance: November 16, 2011  
Date of Public Hearing: December 14, 2011  
Date Comments Due: December 31, 2011

Hudson in 2003 and transferred to New York State Parks Department in 2006. A trail connects it to the Walkway Over the Hudson Historic State Park.

- *The Hudson Valley Rail Trail:* The Hudson Valley Rail Trail is a 2.5 mile stretch of scenic abandoned railroad right-of-way that is maintained and upgraded by the Hudson Valley Rail Trail Association. It currently is paved and open from Commercial Ave in the center of the hamlet of Highland out to Tony Williams Field on North Road. There are three access points - Commercial Ave Extension, The Hudson Valley Rail Trail Depot located at 101 New Paltz Road, and Tony Williams Field. Recently, the Hudson Valley Rail Trail was connected with the Walkway over the Hudson. There are also future plans to connect to the 30 miles of the Dutchess County Rail Trail Network.

**POTENTIAL IMPACTS**

*Population:* As more completely discussed in Section 3.5.2 below, the total population that would be introduced by the project was estimated in order to project potential costs associated with servicing the new development. As no locally generated multipliers are available, multipliers published by Rutgers University Center for Urban Policy Research (June 2006) were utilized as they are the most recent (updated 2006) and based on demographic information for New York State. Based on the analysis as reflected in Table 3.5.1A below, it is estimated that Mountainside Woods would introduce approximately 498 persons to the Town of Lloyd population over a five year period commencing in 2013.

**Table 3.5.1A: Projected Population**

| Units        | Total      | Population Multiplier | Total Population |
|--------------|------------|-----------------------|------------------|
| 3 Bedroom    | 137        | 2.95                  | 404              |
| 4 Bedroom    | 25         | 3.74                  | 94               |
| <b>Total</b> | <b>162</b> |                       | <b>498</b>       |

This estimate of 498 persons represents an increase of approximately 5% of the Town’s total population of 10,863 (2010 Census) and is not expected to have a significant negative impact on the Town or its services. A discussion of the fiscal

# **DEC**

**PUBLICATION**

Division of Water

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## **Design Standards**

**For**

**Wastewater Treatment Works**

**1988**

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Intermediate  
Sized  
Sewerage  
Facilities

**New York State/Department of Environmental Conservation**

- 6) Repeat the test a minimum of three times, until the time for the water to drop one inch for two successive tests yields approximately equal results. The last test will then be taken as the stabilized rate for percolation. If different results are obtained from separate pits in the same general area, the slowest percolation rate is used in design.

**Note:** A percolation test whose results are inconsistent with the soil evaluation shall be disregarded, and the percolation test (s) shall be performed again.

**DESIGN FLOW**

Information on flow rate is necessary for the design of effective wastewater treatment and disposal system. The wastewater flow rates of existing facilities can often be measured. Table 3 can be used as a basis for the design of sewage treatment and disposal facilities for new developments, and for existing establishments when the hydraulic loading cannot be measured. Alternatively, water-usage data can be used to estimate wastewater flow, if it is available for an establishment. Adjustments should be made for infiltration, and for water that will not reach the sewer (ex. boiler water).

For commercial establishments variations in flow may be extreme. In these cases it is necessary to examine the significant delivery period of the wastewater and base the peak design flow upon this information to prevent an excessive rate of flow through the treatment system. It may be desirable to include an equalization basin prior to the treatment system.

Section 15-0314 of the Environmental Conservation Law mandates the use of water-saving plumbing facilities in new and renovated buildings. Hydraulic loading, as determined from reference to Table 3 may be decreased by 20 percent in those installations serving premises equipped with certified water-saving plumbing fixtures. A combination of new and old fixtures can be considered on a pro rata basis.

New toilets which use as little as 0.5 gallons of water per flush are becoming available on the market and the reduction of wastewater flow attributable to these and other new technologies shall be considered on a case-by-case basis. The reduction allowance shall depend in part upon the ability of the builder or owner to ensure adequate maintenance and/or replacement in kind when necessary.

**Table 3. Expected Hydraulic Loading Rates**

| Type of Facility | Flow Rate Per Person (gal./day) | Flow Rate Per Unit (gal./day) |
|------------------|---------------------------------|-------------------------------|
| <b>Airports</b>  |                                 |                               |
| (Per Passenger)  | 3                               |                               |
| (Per Employee)   | 15                              |                               |

|  |     |     |
|--|-----|-----|
| <b>Clubs</b>   |     |     |
| Country  |     |     |
| Per Resident Member  |     | 75  |
| Per Non-Resident Member  |     | 25  |
| Racquet (Per Court Per Hour)                                   |     | 80  |
| <b>Factories</b>   |     |     |
| Per Person/Shift   | 25  |     |
| Add for Showers  | 10  |     |
| <b>Food Service Operations (Per Seat)</b>                      |     |     |
| Ordinary Restaurant  |     | 35  |
| 24 - Hour Restaurant   |     | 50  |
| Restaurant Along Freeway                                       |     | 70  |
| Tavern (Little Food Service)                                   |     | 20  |
| Curb Service (Drive-In, Per Car Space)                         |     | 50  |
| Catering, or Banquet Facilities                                | 20  |     |
| <b>Hair Dresser (Per Station)</b>                              |     | 170 |
| <b>Hospitals (Per Bed)</b>                                     |     | 175 |
| <b>Hotels (Per Room)</b>                                       |     | 120 |
| Add for Banquet Facilities, Theatre, Night Club, as Applicable |     |     |
| <b>Homes</b>   |     |     |
| 1 Bedroom  |     | 150 |
| 2 Bedroom  |     | 300 |
| 3 Bedroom  |     | 400 |
| 4 Bedroom  |     | 475 |
| 5 Bedroom  |     | 550 |
| <b>Institutions (Other Than Hospitals)</b>                     | 125 |     |
| <b>Laundromats (Per Machine)</b>                               |     | 580 |
| <b>Mobile Home Parks</b>                                       |     |     |
| Less Than 5 Units: Use Flow Rates for Homes                    |     |     |
| Twenty or More Units   |     |     |
| Per Trailer  |     |     |
| Double Wide  |     | 200 |
| Five to Twenty Units - Use Prorated Scale                      |     | 300 |
| <b>Motels</b>  |     |     |
| Per Living Unit  |     | 100 |
| With Kitchen   |     | 150 |



**SEQRA FINDINGS STATEMENT  
MOUNTAINSIDE WOODS PETITION FOR  
REZONING**

**DATE: April 18, 2010**

**PROJECT: MOUNTAINSIDE WOODS**

**LOCATION: PARCELS KNOWN AS WESTPORT,  
LEDGEWOOD AND TRAILSIDE  
Town of Lloyd  
Ulster County, New York**

**FINDINGS PREPARED BY:**

**LEAD AGENCY: TOWN OF LLOYD, TOWN BOARD**  
Town Hall  
12 Church Street  
Highland, New York 12528

**APPLICANT: MOUNTAINSIDE WOODS LLC**  
1655 Route 300  
Newburgh, New York 12550

**CONTACT: SUPERVISOR PAUL HANSUT**  
Town Hall  
12 Church Street  
Highland, New York 12528

Telephone: (845) 691-214

preferred plan is chosen it is the Town's intent to proceed with the design and construction of the chosen alternative.

Once the project has been approved, the Applicant will meet with the school bus company to identify appropriate locations for school bus stops during the construction period and once the streets have been dedicated and accepted. Prior to construction, a maintenance and protection of traffic plan will be provided to the Town for review and approval. At all times during construction of the Vista Drive and Vista Drive Extension, one lane will be kept open for emergency vehicles, buses and local traffic.

**(ii) Mitigation**

- Speed tables and similar measures will be installed along Reservoir Road, Brescia Boulevard, Toc Drive, Tano Drive and Hilltop Lane as traffic calming measures.
- The Applicant will pay its fair share contribution toward the necessary improvements at the intersection of Toc Drive/Tillson Ave and Vineyard Avenue. Based on the information available to date on the intersection improvements, the amount of the fair share contribution will be no less than \$250,000.

**(iii) Finding**

The Town Board finds that with implementation of the aforementioned mitigation measures, the project is not expected to have a significant adverse impact on the traffic.

**(I) UTILITIES**

**(i) Review**

The site is located within the Town of Lloyd Highland Water District. Based on a review of records for 2009 there is available capacity of 2.4 million gallons per day. The project sponsor will install an onsite water system constructed to the Town of Lloyd's specifications and then offer the system for dedication to the Town. The proposed potable water demand for the project has been calculated to be 37,275 gallons per day. The needed fire flow for the project has been calculated to be 1,500 gallons per minute. The New York State Department of Health requires that a minimum of 20 PSI of pressure be maintained in all parts of the system under fire flow conditions and maximum daily flow conditions. Based on the fire flow analysis in the engineer's report the minimum pressure in the system during these flow demands is estimated to be 31.8 PSI.

The site is partially located within the service area of the Town of Lloyd Highland Sewer District. A portion of tax lot 87.004-3-14 and all of tax lot 87.004-5-1.2 is in the district. Based on 2009 and 2010 flow records, the Highland Wastewater Treatment Plant has excess capacity of 750,000 gallons per day. However, 520,000 gallons per day is allotted to other users leaving a remaining available capacity of 230,000 gallons per day. The project will increase sanitary sewer use by an average of 37,275 gallons per day. A sewer district extension petition has been filed with the Town to include the entire project area within the Highland Sewer District. The Applicant will install a sewer collection system to service the project and then offer the system for dedication to the Town.

# **RECOMMENDED STANDARDS for WASTEWATER FACILITIES**

**POLICIES FOR THE DESIGN, REVIEW, AND APPROVAL OF PLANS AND  
SPECIFICATIONS**

**FOR WASTEWATER COLLECTION AND TREATMENT FACILITIES**

**2004 EDITION**

**A REPORT OF THE WASTEWATER COMMITTEE**

**OF THE**

**GREAT LAKES -- UPPER MISSISSIPPI RIVER**

**BOARD OF STATE AND PROVINCIAL PUBLIC HEALTH AND  
ENVIRONMENTAL MANAGERS**

**MEMBER STATES AND PROVINCE**

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## 11.24 Hydraulic Capacity

### 11.241 Flow Definitions and Identification

The following flows for the design year shall be identified and used as a basis for design for sewers, lift stations, wastewater treatment plants, treatment units, and other wastewater handling facilities. Where any of the terms defined in this Section are used in these design standards, the definition contained in this Section applies.

a. Design Average Flow

The design average flow is the average of the daily volumes to be received for a continuous 12 month period expressed as a volume per unit time. However, the design average flow for facilities having critical seasonal high hydraulic loading periods (e.g., recreational areas, campuses, industrial facilities) shall be based on the daily average flow during the seasonal period.

b. Design Maximum Day Flow

The design maximum day flow is the largest volume of flow to be received during a continuous 24 hour period expressed as a volume per unit time.

c. Design Peak Hourly Flow

The design peak hourly flow is the largest volume of flow to be received during a one hour period expressed as a volume per unit time.

d. Design Peak Instantaneous Flow

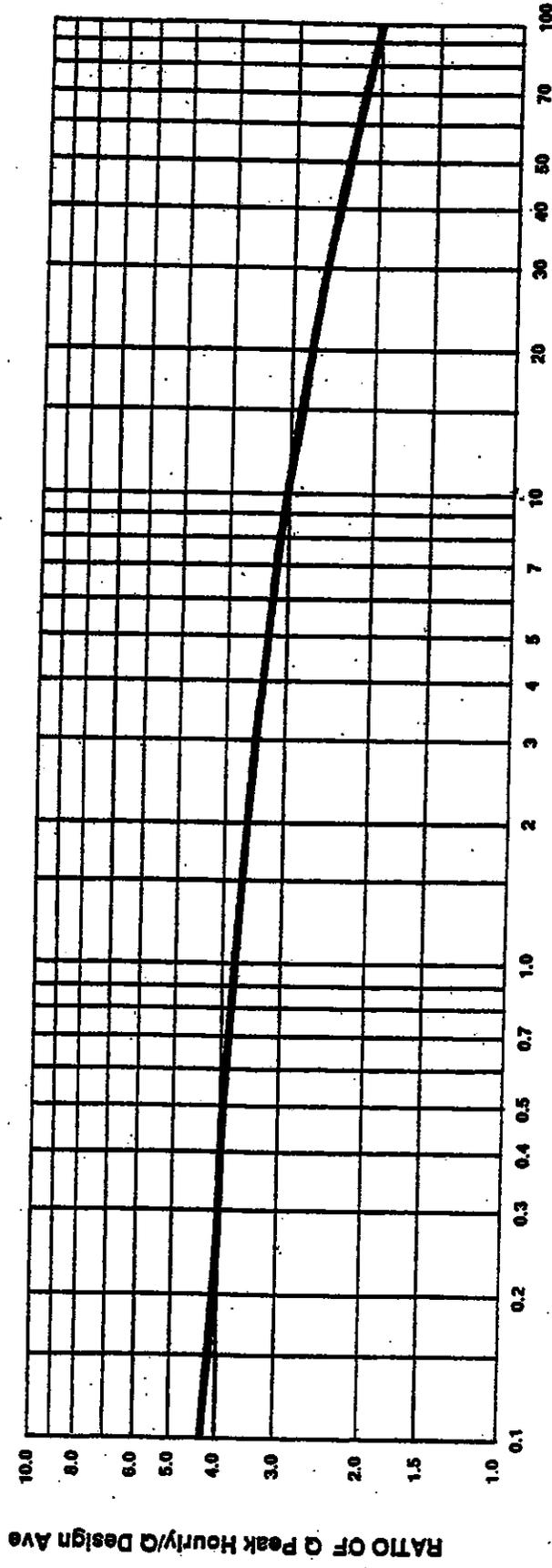
The design peak instantaneous flow is the instantaneous maximum flow rate to be received.

### 11.242 Hydraulic Capacity for Wastewater Facilities to serve Existing Collection Systems

a. Projections shall be made from actual flow data to the extent possible.

b. The probable degree of accuracy of data and projections shall be evaluated. This reliability estimation should include an evaluation of the accuracy of existing data, as well as an evaluation of the reliability of estimates of flow reduction anticipated due to infiltration/inflow (I/I) reduction or flow increases due to elimination of sewer bypasses and backups.

**FIGURE 1.  
RATIO OF PEAK HOURLY FLOW TO DESIGN AVERAGE FLOW**



POPULATION IN THOUSANDS

**Q peak hourly:** Maximum Rate of Wastewater Flow (Peak Hourly Flow)

**Q design ave:** Design Average Daily Wastewater Flow

**Source:**  $Q \text{ Peak Hourly} / Q \text{ Design Ave} = \frac{18 + \sqrt{P}}{4 + \sqrt{P}}$  (P = population in thousands)



Fair, G.M. and Geyer, J.C. "Water Supply and Waste-water Disposal" 1st Ed., John Wiley & Sons, Inc., New York (1954), p. 136



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71 Clinton Street  
Montgomery, NY 12549  
phone: (845) 457-7727  
fax: (845) 457-1899

October 25, 2012

Town of Lloyd Planning Board  
12 Church Street  
Highland, NY 12528

**RE: MOUNTAINSIDE WOODS  
TOWN OF LLOYD  
SEWER FLOW CALCULATIONS**

Dear Board Members:

We are in receipt of comments/calculations from the public regarding sanitary sewer flows for the project. The comments can be summarized into two basic concerns.

1. The average daily sanitary flow rate used for the design is not correct.
2. A peak flow analysis of the sanitary sewers was not considered.

In response to these comments we offer the following.

1. The proposed average daily flow rate of 37,275 gallons per day was based on the NYSDEC Design Standard of 75 gallons per day per person times the estimated population of the project. It is our opinion that this flow accurately estimates the average daily flow rate for the project.

During review of the Engineer's Report for the Sewer District Extension the Town's consulting engineers, Morris Associates, asked that the design flow be revised to reflect a more conservative design flow estimate of 400 gallons per day for 3 bedroom homes and 475 gallons per day for 4 bedroom homes with a deduction of 20% for water saving fixtures per page 10 of the *NYSDEC Design Standards for Wastewater Treatment Works 1988* as quoted below.

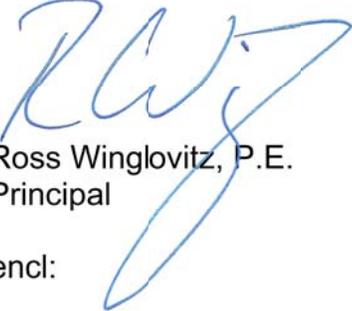
*"Section 15-0314 of the Environmental Conservation Law mandates the use of water-saving plumbing facilities in new and renovated buildings. Hydraulic loading, as determined from reference to Table 3 may be decreased by 20 percent in those installations serving premises equipped with certified water-saving plumbing fixtures. A combination of new and old fixtures can be considered on a pro rata basis."*

This analysis yields a design average daily flow of 53,340 gallons per day which was the basis of the Engineer's Report for the sewer district extension.

2. The analysis of the capacity of the sewers had not been completed as the estimated sewer flows are far less than the capacity of an 8 inch sewer pipe placed at minimum slope. The capacity of an 8 inch sewer pipe with the flattest slope proposed for the site (0.5%) will flow approximately 550,000 gallons per day. This capacity is more than 10 times the estimated average daily flow and would therefore easily meet the design requirement of passing the maximum daily flow rate which is 2 times the average daily flow rate or 106,680 gallons per day.

If you have any additional questions and/or comments please don't hesitate to contact this office.

Sincerely,  
Engineering & Surveying Properties, PC



Ross Winglovitz, P.E.  
Principal

encl:

cc: file

## Memorandum

## Morris Associates PLLC

**To:** Scott Saso and Members of the Town of Lloyd Planning Board  
Dave Barton  
Terresa Bakner

**From:** Andy Learn, PE  
Liz Axelson, AICP

**Date:** November 9, 2012  
Revised November 15, 2012

**Re: Mountainside Woods Subdivision – Indelicato Property Field Visit**  
**SBL: 87.4-5-1.2; 87.4-5-2; and 87.4-3-14**  
**Town of Lloyd, MA Project No. 210501.030**

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At the request of the Planning Board, we made a field visit to Mr. John Indelicato's property located north of and adjacent to the subdivision site on November 2, 2012. The site visit was done in response to concerns raised at the recent subdivision public hearing sessions. The following attended the field visit:

- Paul Hansut, Town Supervisor;
- Mike Guerriero, Town Councilman;
- Carl DiLorenzo, Town Planning Board member;
- John Indelicato, owner of the property adjacent to the subdivision site;
- Ross Winglovitz, Engineer for the applicant;
- Andy Learn, Town's Consulting Engineer; and
- Liz Axelson, Town's Consulting Planner

### Driveway flooding

Mr. Indelicato showed the group the locations where flood waters have caused damage to his driveway in the past. The primary location of damage was the point at which the unnamed tributary of the Twaalfskill Creek crosses under the driveway through three (3) twenty-four-inch (24") diameter HDPE culverts (photos attached). It appears that flooding in this area may be due to the fact that these culverts are too small to handle the flow from upstream during storms. Another crossing exists on the subdivision site upstream (to the south) of these culverts, which consists of 2 five foot (5') by ten foot (10') box culverts. This existing upstream crossing has an available flow area of approximately 10 times that of the 3 24" culverts located downstream on the Indelicato property.

After flowing under the driveway on the Indelicato property, the stream continues through a low wooded area toward the old railbed that is the base for the Hudson Valley Rail Trail (HVRT). Some natural ponding and wet areas were observed in the downstream area between the driveway and the base of the HVRT.

### Culvert under Rail Trail

An existing 24" diameter reinforced concrete pipe (RCP) currently conveys the unnamed tributary of the Twaalfskill beneath the rail trail. Mr. Indelicato reports that during heavy rains his property frequently floods just upstream of this culvert on this lower part of his property. We observed that this culvert lies at the bottom of an embankment, which is at least 10 feet below the edge of the rail trail. This may provide a large basin area where stormwater may be detained on the upstream (west) side of the culvert. In other words, this basin area may serve to reduce the flow rate of runoff entering the downstream areas of the Twaalfskill. There was discussion of the size of this RCP. It was agreed that any enlargement of this pipe would likely result in higher peak stormwater flows downstream and potentially exacerbate flooding conditions to the east of the HVRT.

### Modifications to Proposed Pond C4 Discharge

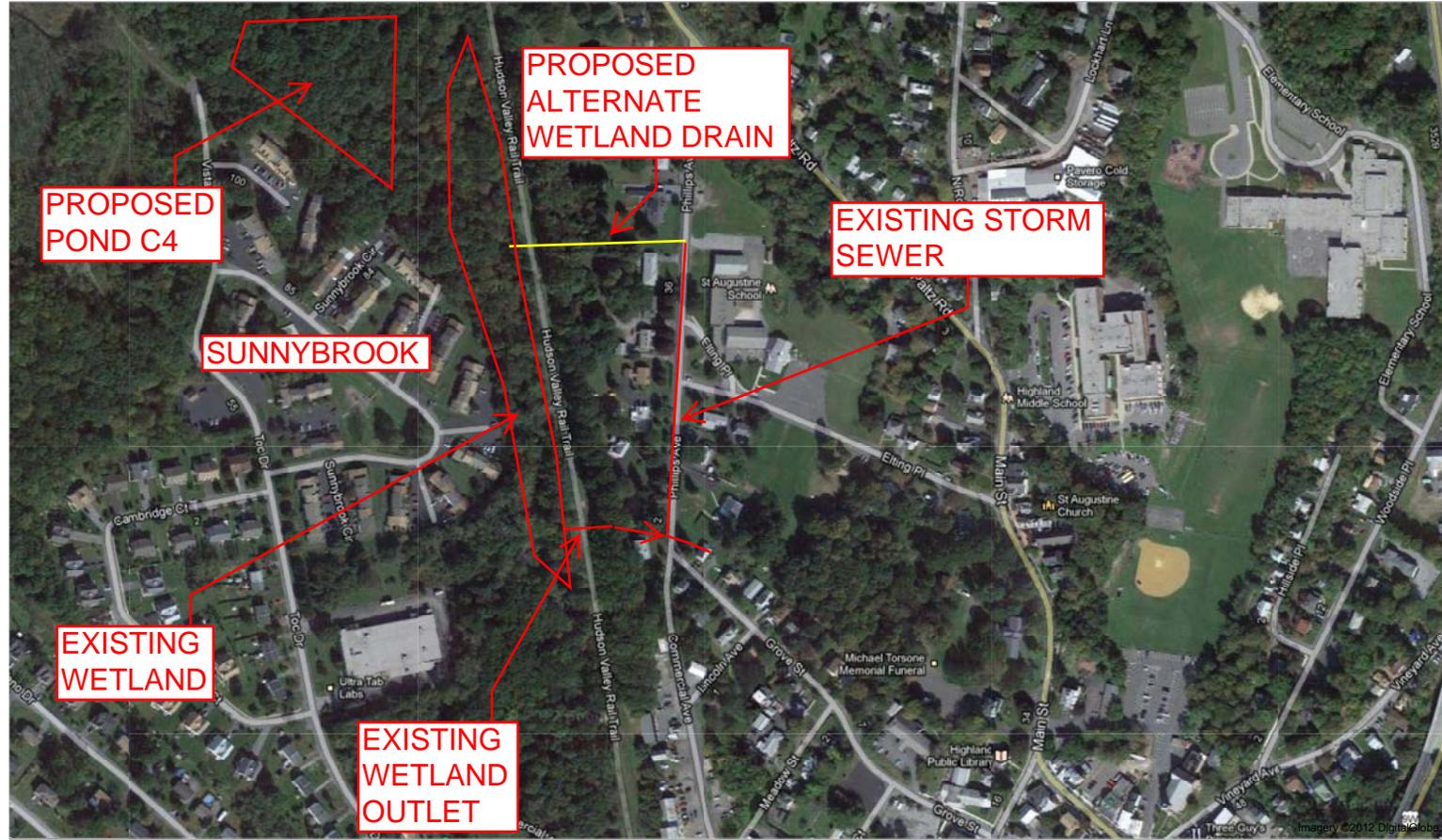
The group also visited the area between the HVRT and the existing Sunnybrook development. There was standing water in an existing wet area at this location. The Mountainside Woods subdivision's Pond C4 is proposed to discharge to this wet area. Mr. Indelicato suggested adding a new culvert beneath the HVRT which would drain this existing wetland. This culvert could then tie into the existing stormsewer system in Phillips Road/Commercial Avenue.

We inspected the catchbasins and manholes downstream from the HVRT. It was discovered that the existing stormsewer ties into the same point along Phillips Road/Commercial Avenue as the current wetland discharge point. The suggested modification of adding a new culvert beneath the HVRT to drain the wetland on its southwest side, if implemented, would result in over burdening the existing stormsewer system. The altered path of stormwater would reduce the effectiveness of the detention volume provided by the existing wetlands and could potentially exacerbate downstream flooding conditions.

cc: Town of Lloyd Town Board



To see all the details that are visible on the screen, use the "Print" link next to the map.



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APPROXIMATE  
LOCATION OF 24"  
DIA. RCP

CHANNEL  
CONSTRUCTION

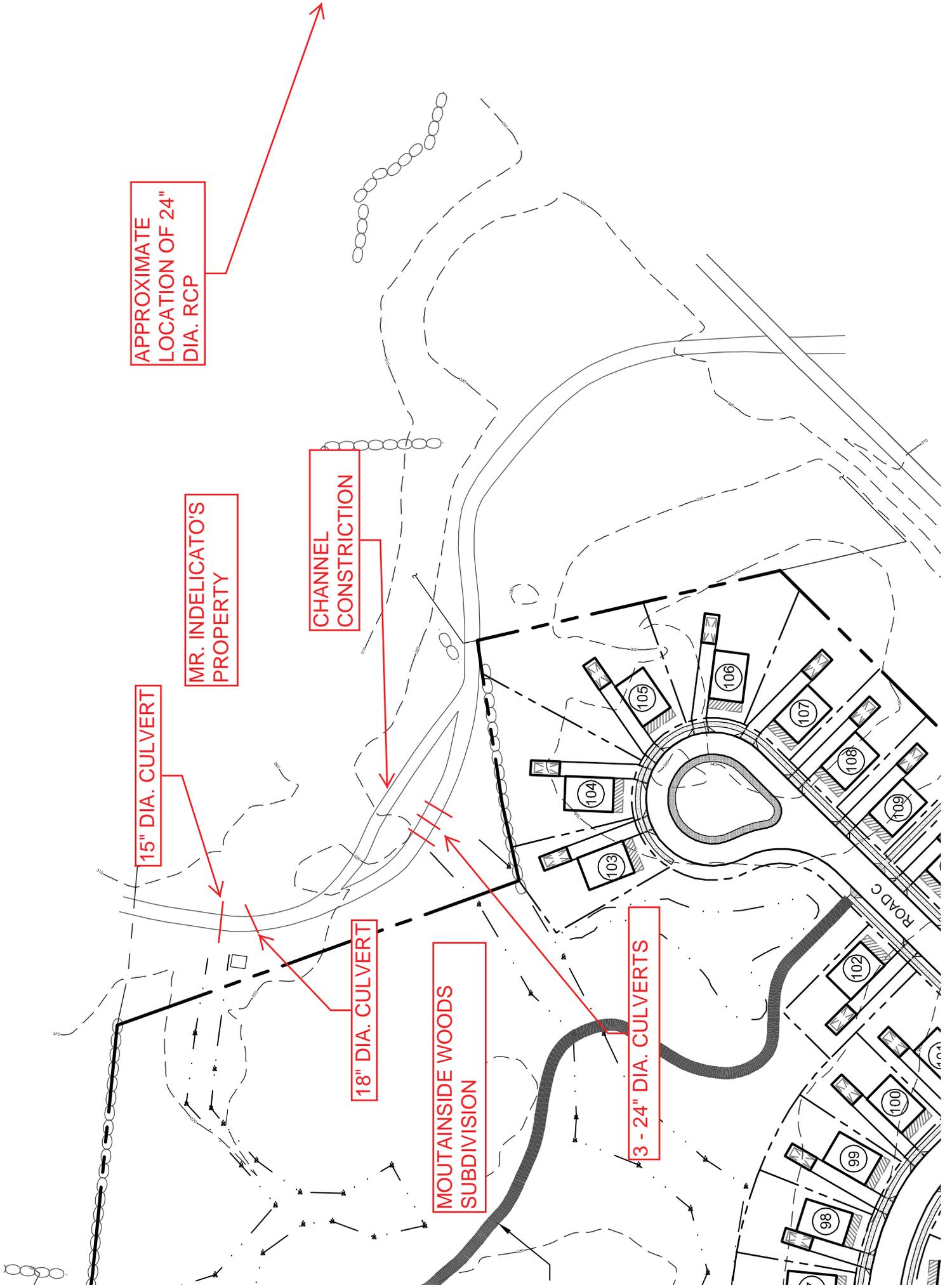
MR. INDELICATO'S  
PROPERTY

15" DIA. CULVERT

18" DIA. CULVERT

MOUNTAIN SIDE WOODS  
SUBDIVISION

3 - 24" DIA. CULVERTS





**Photo 1:**  
View of Inlet side of 3 – 24" Dia. Culverts beneath Mr. Indelicato's Driveway



**Photo 2:**  
View of channel constriction downstream of 3 – 24" Dia. Culverts beneath Mr. Indelicato's Driveway



**Photo 3:**  
View of channel downstream of constriction



**Photo 4:**  
View of inlet side of 18" HDPE culvert beneath Mr. Indelicato's driveway



**Photo 5:**  
View of inlet side of 15" HDPE culvert beneath Mr. Indelicato's driveway



**Photo 6:**  
View of inlet side of 24" RCP culvert beneath HVRT