

January 8, 2021

MEMORANDUM

FORMAL ACTION & RECOMMENDATION #1 MEETING OF 01-14-21

To: Conservation Commission/Inland Wetlands and Watercourses Agency

From: Tom Mocko, Environmental Planner

Re: **Application of Michael Pucci for: an inland wetlands and watercourses permit; and recommendations to the Town Plan & Zoning Commission for subdivision approval and a Section 6.8 (rear lot) Special Permit – proposed 3-lot Casella Subdivision – 11.7 acres located east and south of the easternmost cul-de-sac of Knollwood Drive - Rural Residence Zone and Groundwater Protection Zone 2 – Dutton Associates, LLC**

PROPOSAL: To subdivide an 11.7-acre parcel into three residential lots (1 frontage and 2 rear lots) that are to be serviced by individual, on-site septic systems and wells. Access is provided from the cul-de-sac using a shared drive that splits to the proposed house sites. **A private stormwater detention basin** is also proposed, located 230 feet south of the proposed house on lot 3; **both the construction and maintenance access are from Hebron Avenue a 0.25 mile away**. Private conservation easements are proposed on portions of all three lots. The project will result in **4.4 percent of impervious coverage** on the 11.7-acre site.

REVIEW: The application for the wetlands permit (consisting of a set of site plans and a set of written responses) were distributed to you by packet delivery or posted on the Town website. The set of written responses begins on page 11 (page nos. are handwritten in upper right corner on the 8 ½” x 11” sheets). Within the written narrative we are informed that:

- a. There are no direct impacts upon any wetland and watercourse, just land disturbances within the uplands area;
- b. The revised stormwater management plans adequately address the concerns of the peak discharge flow rates, volume and water quality;
- c. The revised soil erosion and sedimentation control plans and narrative are well devised, comprehensive and should be effective if followed;
- d. The project complies with the Town’s Plan of Conservation and Development (response to application Part II.M on pages 14 & 15);

- e. The proposed conservation easements on all of the 3 lots totals 3.6 acres or 31 percent of the site; and
- f. The project results in 4.4 percent of impervious coverage on the 11.7 acres of land.

From a review of the set of site plans:

1. Information about the site's existing conditions (i.e. soil types, bedrock/ledge at the land's surface, slopes greater than 20 percent) can be found on plan sheet 4;
2. The long access easement area for the construction and maintenance access road to the privately-owned and maintained stormwater treatment basin appears on sheet 3;
3. The proposed private conservation easements' locations on the proposed lots are shown on sheets 1 and 2;
4. The details of the well-devised soil erosion and sedimentation control plan are exhibited on plan sheet 5 (for the first phase of all infrastructure construction), sheet 6 (for the second phase involving individual lot construction), and sheet 8 for overall erosion and sedimentation control narrative and all other notes; and
5. The proposed stormwater treatment basin design and details appear on sheet 9 of the plans.

Please peruse the Town Engineer's memorandum dated January 7, 2021 for it will be referenced as additional conditions of approval. Comments numbered 1 and 2 echo the Commission's previously stated concerns. The remaining six comments within the Town Engineer's memo are less critical, but provide added detail to the plans for future use.

We are still awaiting a memo from the Health Department with regards to proposed septic systems and wells. I'm informed that the memo will be favorable and find the septic and well designs to be acceptable. The reason for the Health Department withholding the memorandum is related to their administrative process.

This memo is now provided and follows with the ensuing attachments. TM 1/13/21

DRAFT MOTION FOR A WETLANDS PERMIT

Moved, that the Inland Wetlands and Watercourses Agency issue an inland wetlands and watercourses permit to Michael Pucci for the construction of a stormwater treatment basin within the upland review area and its subsequent discharges towards an adjacent downhill wetlands at the proposed 3-lot Casella Subdivision, in accordance with plans on file at the Office of Community Development, and in compliance with the following conditions:

1. Adherence to the Town Engineer's memorandum dated January 7, 2021.
2. A private conservation easement shall be established as generally depicted on the site plans and this area shall henceforth not be disturbed from its present condition until the conservation easement is in force. The precise delineation shall be recorded by bearings and distances. The easement shall be recorded on the land records. The conservation easement shall be marked with oak stakes labeled "Conservation Easement" with waterproof ink and tied with red flags. These stakes are to be located at each change of boundary direction and at every 100 foot interval on straightaways. All conservation easement corners shall be permanently marked with iron pins. In addition, numbered "Glastonbury Conservation Easement" signs, available from the Town's Office of Community Development, shall be nailed to trees that are within two feet of the easement area's boundary line, at approximately 100 feet intervals. The sign shall be installed facing outwards at about 7 feet above grade, using two 3 inch or greater aluminum or galvanized nails, with the nails left protruding from tree trunks about 1-1/2". Where no trees are suitable 7 foot metal or long-lived wood posts with easement signs attached shall be used. Such placement of signs shall be performed under the supervision of a Licensed Land Surveyor prior to land-clearing or earth-moving activities and notice shall be provided to the Town's Office of Community Development upon its completion.
3. In order to protect the physical, chemical and biological characteristics of the wetlands and watercourses and water quality, the following conditions shall apply:
 - a. Pesticides and herbicides shall not be disposed of within the designated conservation easement areas;
 - b. Pesticides and herbicides shall only be applied utilizing best management practices for integrated pest management; and
 - c. The developer agrees to recite these conditions in the deed to the individual property(ies).
4. There shall be strict adherence to the soil erosion and sedimentation control plan and narrative as exhibited on the site plans.

5. Installation of soil erosion and sedimentation control and stabilization measures shall be the Permittee's responsibility. Once installed these measures shall then be inspected by the Environmental Planner prior to land disturbance activities. Afterwards it then shall be the Permittee's responsibility to inspect these control measures during, and immediately following, substantial storm events and maintain and/or replace the control measures, when needed, on a regular basis until the site is vegetatively stabilized. Hay bales shall be replaced every 60 days. The Environmental Planner is hereby authorized to require additional soil erosion and sediment controls and stabilization measures to address situations that arise on the site.
6. Underground fuel storage tanks shall be prohibited to reduce the potential of contamination to wetlands, watercourses, and groundwater resources.
7. The plot plan required for building permit application shall contain and comply with these conditions of approval. If construction including limits of clearing is proposed in areas other than the indicated locations on these plans, the Office of Community Development shall be notified and the Office of Community Development and the Chairman of the Town Plan and Zoning Commission are hereby authorized to approve or deny the alternative. Each plot plan shall indicate the limits of vegetative clearing, existing and proposed contours, soil erosion and sediment controls, all subsurface drainage, all stockpile areas, and temporary and permanent vegetative stabilization measures, including details of seedbed preparation, seed mix selection, application rates, seeding dates and mulching requirements. Vegetative clearing for stockpiling shall be minimized and subject to the approval of the Environmental Planner.
8. Prior to the issuance of a Certificate of Occupancy, certification from a professional engineer shall be required confirming that the stormwater management system was constructed in conformance with the approved design.
9. The Permittee shall be fully responsible for damages caused by all activities undertaken pursuant to this permit that may have a detrimental effect on wetlands and/or watercourses, and all such activities that cause erosion and sedimentation problems. If the Permittee sells individual building lots to other builders, the Permittee shall thoroughly review all conditions of this permit with the buyer, and the buyer shall consult with the Environmental Planner before the buyer commences any work on the site.

**DRAFT RECOMMENDATION TO
THE TOWN PLAN & ZONING COMMISSION**

MOVED, that the Conservation Commission recommends to the Town Plan & Zoning Commission subdivision approval and approval of a Section 6.8 (rear lot) Special Permit concerning the proposed 3-lot Casella Subdivision located east and south of the easternmost cul-de-sac of Knollwood Drive, in accordance with plans on the file in the Office of Community Development, and in compliance with the following conditions of approval:

1. Adherence to the Town Engineer's memorandum dated January 7, 2021.
2. A private conservation easement shall be established as generally depicted on the site plans and this area shall henceforth not be disturbed from its present condition until the conservation easement is in force. The precise delineation shall be recorded by bearings and distances. The easement shall be recorded on the land records. The conservation easement shall be marked with oak stakes labeled "Conservation Easement" with waterproof ink and tied with red flags. These stakes are to be located at each change of boundary direction and at every 100 foot interval on straightaways. All conservation easement corners shall be permanently marked with iron pins. In addition, numbered "Glastonbury Conservation Easement" signs, available from the Town's Office of Community Development, shall be nailed to trees that are within two feet of the easement area's boundary line, at approximately 100 feet intervals. The sign shall be installed facing outwards at about 7 feet above grade, using two 3 inch or greater aluminum or galvanized nails, with the nails left protruding from tree trunks about 1-1/2". Where no trees are suitable 7 foot metal or long-lived wood posts with easement signs attached shall be used. Such placement of signs shall be performed under the supervision of a Licensed Land Surveyor prior to land-clearing or earth-moving activities and notice shall be provided to the Town's Office of Community Development upon its completion.
3. In order to protect the physical, chemical and biological characteristics of the wetlands and watercourses and water quality, the following conditions shall apply:
 - d. Pesticides and herbicides shall not be disposed of within the designated conservation easement areas;
 - e. Pesticides and herbicides shall only be applied utilizing best management practices for integrated pest management; and
 - f. The developer agrees to recite these conditions in the deed to the individual property(ies).
 - g. There shall be strict adherence to the soil erosion and sedimentation control plan and narrative as exhibited on the site plans.

4. There shall be strict adherence to the soil erosion and sedimentation control plan and narrative as exhibited on the site plans.
5. Installation of soil erosion and sedimentation control and stabilization measures shall be the Permittee's responsibility. Once installed these measures shall then be inspected by the Environmental Planner prior to land disturbance activities. Afterwards it then shall be the Permittee's responsibility to inspect these control measures during, and immediately following, substantial storm events and maintain and/or replace the control measures, when needed, on a regular basis until the site is vegetatively stabilized. Hay bales shall be replaced every 60 days. The Environmental Planner is hereby authorized to require additional soil erosion and sediment controls and stabilization measures to address situations that arise on the site.
6. Underground fuel storage tanks shall be prohibited to reduce the potential of contamination to wetlands, watercourses, and groundwater resources.
7. The plot plan required for building permit application shall contain and comply with these conditions of approval. If construction including limits of clearing is proposed in areas other than the indicated locations on these plans, the Office of Community Development shall be notified and the Office of Community Development and the Chairman of the Town Plan and Zoning Commission are hereby authorized to approve or deny the alternative. Each plot plan shall indicate the limits of vegetative clearing, existing and proposed contours, soil erosion and sediment controls, all subsurface drainage, all stockpile areas, and temporary and permanent vegetative stabilization measures, including details of seedbed preparation, seed mix selection, application rates, seeding dates and mulching requirements. Vegetative clearing for stockpiling shall be minimized and subject to the approval of the Environmental Planner.
8. Prior to the issuance of a Certificate of Occupancy, certification from a professional engineer shall be required confirming that the stormwater management system was constructed in conformance with the approved design.
9. Healthy mature trees shall be preserved and saved when possible. Said trees shall be protected with the use of high visibility construction fence during construction or otherwise protected as required by staff.
10. In the event blasting is required for construction, pre-blast and post-blast surveys shall be required for nearby properties.
11. Tree stumps and blasted rock material shall not be buried at the site.
12. Metal waste containers shall be provided at the site to facilitate the collection of refuse material generated from construction activities. Such material shall not be buried or burned at the site.

TM:gfm

Just received in OCD
1/12 11:03 AM



Town of Glastonbury
Health Department

MEMORANDUM

Date: January 5, 2021

To: Town Planning & Zoning, Conservation & WPCA Commissions

From: Don Kendrick, R.S., Sanitarian *(Signature)*

Re: Casella Subdivision, Knollwood Drive

The Department has been involved in the investigation of this property since the spring of 1990. Test pits were observed in the spring of 1990, April and June of 2010 and June of 2019. Groundwater monitoring was conducted during the spring of 2020. The soil in the area is described as Charlton Chatfield Complex with 0 to 45 percent slopes and Hollis Chatfield-Rock Outcrop Complex with 15 to 45 percent slopes. Signs of seasonal high groundwater were detected in some areas. Shallow ledge is the most common restrictive factor on this property. However, areas suitable for on-site sewage disposal were identified and are shown on plans revised January 5, 2021 by Dutton Associates, LLC.

The Department recommends approval of this proposal using on-site sewage disposal and individual well water supplies with the following conditions:

1. All sewage disposal systems are to be designed by a professional engineer licensed in the State of Connecticut.
2. Leach fields will be permitted only in the locations shown on the approved subdivision plan.
3. The well and septic system locations are approved based upon a well withdrawal rate of less than 10 gallons per minute.
4. All of the drinking water supply wells are required to be tested for uranium and radon in addition to the standard potability parameters.
5. Sanitary "as-built" drawings are to be submitted to the Health Department prior to the issuance of a Certificate of Occupancy.
6. The well in the southwest corner of lot 3 is to be properly abandoned by a licensed well driller prior to the issuance of Certificate of Occupancy for any structure on this lot.

Revised 9-22-17

January 7, 2021

MEMORANDUM

To: Thomas Mocko, Environmental Planner
Conservation Commission

From: Daniel A. Pennington, Town Engineer / Manager of Physical Services



Re: Casella Subdivision – Knollwood Road

The Engineering Division has reviewed the subdivision plans for the proposed Casella Subdivision located on Knollwood Drive prepared by Dutton Associates, LCC, last revised November 23, 2020 and the related drainage computations last revised October 1, 2020 offers the following comments:

1. The drainage report indicates that the proposed drainage system will reduce peak flow rates from the project area for all storm events analyzed and is consistent with Town standards for stormwater management. This report must be signed and sealed by a Professional Engineer.
2. The deeds for each new lot shall include a reference to the maintenance responsibility for the shared stormwater water facilities including the detention pond, subject to review and approval of the Town Engineer. The Common Driveway Agreement shall also include language to this effect subject to review and approval of the Town Engineer.
3. Revise the impervious cover table on sheets 5 and 6 to also include pre and post directly connected impervious area for MS4 Permit tracking.
4. Provide a grading detail for the driveways to #250 and Lot 3 to ensure that any gutter flow does not get directed down the driveways toward these properties.
5. Depict and label existing houses, wells, and septic system locations on abutting properties located at #519 and #515 Cedar Ridge Drive.
6. Review the need for the 15' ROW and utility easement in favor of lot 1 since it appears to be included in the 30' ROW and utility easement for lots 1,2 &3.
7. The driveway and utility easement in favor of 250 Knollwood Drive should be expanded to encompass the full extent of the proposed shared driveway needed for this lot to gain access to the existing cul-de-sac.
8. Label the area of detention pond access easement located on each lot. Provide the remaining land area for Lot N00080 on sheet 3 of 10.



DUTTON ASSOCIATES, LLC

*selected
excerpts
from:*

DRAINAGE COMPUTATIONS CASELLA SUBDIVISION

KNOLLWOOD DRIVE
GLASTONBURY, CT

PREPARED BY
DUTTON ASSOCIATES, LLC
OCTOBER 1, 2020

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SUMMARY

The Casella Subdivision proposal is a 3-lot subdivision of an 11.7-acre parcel located southeasterly of the Knollwood Drive cul-de-sac. The subdivision contains two rear lots and 1 frontage lot. All lots will be accessed by a common driveway from Knollwood Drive. Additionally, a previously approved rear lot (owned by the applicant but not a part of this application) will also be accessed by the common drive.

Topography of the site is moderately steep with approximately 41,200 s.f. (0.95 acres) of the site with slopes over 20%. The steep slope areas are scattered throughout the site. The site also contains some ledge outcrops and many large boulders. Soils on the site are predominantly Charlton and Hollis series (hydrologic soil groups B & D). Vegetation on the site consists of a mixed hardwood forest with scattered pines. Surface water runoff generally flows from the northeast to the southwest. A wetland area exists which was delineated by Cynthia Rabinowitz and field surveyed by Dutton Associates.

Storm water runoff generally flows from the northeast to the southwest and ultimately to a wetland area east, southeast of the site, then water flows southerly through the wetland area to Hebron Avenue, and easterly along the northerly gutter of Hebron Avenue to a catch basin inlet by building #2390, thence southerly through a pipe system to a discharge locates at a wetland area just easterly of Sturgeon River Road.

A subsurface drainage system has been designed to collect runoff from the common driveway. The flows are directed to a detention pond located at the southwesterly corner of the site. The storm drain system was designed for the 10-year storm using the rational method. The gutter flow analysis, pipe design, and headwater analysis were conducted per the Connecticut DOT Drainage manual.

Proposed storm flows from the site are directed to a detention pond located along the southerly end of the site. Hydrology computations were conducted using the TR-55 Method with routing computations run using the Hydroflow Hydrographs program. The detention pond was sized to mitigate for any increase in flow for the 2-year through the 100-year storms. Additionally, a small diversion of an upper portion of one of the watersheds is proposed to mitigate of the increase in the volume of stormwater due to the development. The volume mitigation is proposed due the storm flows running through private property to the southeast vis a small intermittent watercourse and a concern for long term erosion of the channel.

The detention pond will also be used to treat the water quality volume (WQV) from the site. The detention pond has been designed to contain the entire water quality volume below the first outlet flow structure. The WQV will be collected using an underdrain system located at the bottom of the detention pond with the outflow from the underdrain regulated by an orifice sized to drain the WQV over a 40-hour period.

Below is a summary of the pre and post development flows and volumes from the site.

STORM FLOW SUMMARY

STORM	EXIST. "A"	EXIST. "B"	TOTAL EXIST.	PROP. "A"	PROP. "B"	TOTAL PROP.	Δ
YEAR	CFS	CFS	CFS	CFS	CFS	CFS	CFS
2	1.4	1.7	3.0	1.3	1.4	2.5	-0.5
10	4.1	6.8	10.4	3.7	5.7	9.2	-1.2
25	6.1	10.8	16.2	5.5	9.6	14.8	-1.4
50	7.5	14.0	20.8	6.9	12.8	19.4	-1.4
100	9.2	17.8	26.0	8.4	16.7	24.8	-1.2

VOLUME SUMMARY

STORM	EXIST. "A"	EXIST. "B"	TOTAL EXIST.	PROP. "A"	PROP. "B"	TOTAL PROP.	Δ
YEAR	CUFT	CUFT	CUFT	CUFT	CUFT	CUFT	CUFT
2	11,160	20,731	31,890	10,861	21,486	32,246	+356
10	28,739	63,980	92,719	27,968	63,011	90,979	-1,740
25	41,429	97,256	138,685	40,318	94,658	134,976	-3,709
50	51,382	124,040	175,422	50,004	120,053	170,057	-5,365
100	62,695	155,006	217,701	61,014	149,360	210,373	-7,328

CONCLUSION

Based on the analysis conducted, the proposed Casella Development will not have an adverse impact on downstream properties.

*END of
Drainage Computations
excerpts*

**GLASTONBURY CONSERVATION COMMISSION
(INLAND WETLANDS & WATERCOURSES AGENCY)**

Portion of REGULAR MEETING MINUTES of Thursday, November 12, 2020

The Glastonbury Conservation Commission (Inlands Wetlands & Watercourses Agency), along with Mr. Tom Mocko, Environmental Planner, in attendance held a Regular Meeting via ZOOM video conferencing.

ROLL CALL

Commission Members-Present

Judy Harper, Chairman
vacancy, Vice-Chairman
Kim McClain, Secretary
Brian Davis
Frank Kaputa
William Shea

Commission Members- Excused

Mark Temple

Chairman Harper called the meeting to order at 7:00 P.M.

I. INFORMAL DISCUSSIONS

1. Proposed 3-lot Casella Subdivision – 1 frontage and 2 rear lots on 11.7 acres located east and south of the easternmost cul-de-sac of Knollwood Drive – Rural Residence Zone and Groundwater Protection Zone 2 – Dutton Associates, LLC – The Estate of Jon Casella (c/o Michael Pucci), landowner/applicant

Mr. Jim Dutton of Dutton Associates, LLC announced that he thought he had submitted the application for a wetlands permit. He believed that he had submitted almost everything and all that remains are minor issues. Mr. Dutton will clarify the erosion sedimentation controls. He also noted that the biggest concern from the last meeting was the downstream storm flow into the wetlands. Mr. Dutton said that Mr. Mocko's concern was the volume, which has been addressed. He explained that some of the runoff will be diverted on lot 2 to the sub-watershed to the east, instead of letting it drain to the west and south. Mr. Dutton stated that the water that is diverted will go through the property currently owned by the applicant, with the runoff ultimately ending up in Roaring Brook.

Mr. Dutton informed the Commission that the initial comments from the Engineering Department were minor and had to do with labeling issues. He noted that the only storm event, without a decrease in volume reduction was the 2-year storm. Mr. Dutton explained that this increase might be the result of the software that was used. Mr. Dutton said that there will not be an adverse impact to downstream properties.

Mr. Dutton stated that he did not adjust the site plans with solar orientation in mind. He said lot 1 is not conducive to solar; lot 2 has potential and with lot 3, it might be possible to rotate the house if compromises are made in the design. He explained that there are steep slopes and stockpiled soil that make it difficult to re-orient.

Mr. Dutton could not find a better way to access the detention basin from the north. He explained that the septic system for lot 3 was initially located to the west of the detention pond and then moved to the north of the detention pond, away from the upland review area. Mr. Dutton noted that he did not hear back from the Health Department.

Mr. Dutton stated that they are proposing a conservation easement to the north, which is triangular in shape and located on lot 1. He also noted that in the near future, the Casella estate will give the land south of the subdivision to the Town.

Secretary McClain expressed that it is deeply disappointing that solar access is not a given feature in a new development. She explained that buyers are looking for solar access and consider it a fundamental feature. Secretary McClain continued, saying that solar energy increases property values. Commissioner Davis inquired if discussions regarding solar energy have taken place.

Mr. Dutton said that not every site is conducive to solar; two-thirds of the site has potential, but it would be up to the homebuyers to compromise on some aspects. Mr. Dutton reminded commissioners that solar panels do not have to be on the roof and noted that solar is not always the best choice. He explained that solar panels have a shelf life and questioned what could be done with the expired panels. Mr. Dutton said that geothermal wells are a better solution for saving energy. Secretary McClain inquired if geothermal wells will be included in the plans. Mr. Dutton said that he does not think it is appropriate to put them on a subdivision plan; it should be up to the owners.

Commissioner Kaputa mentioned that he knows that it is not Mr. Dutton's job to bring up energy saving features. He added that Mr. Dutton is knowledgeable and inquired if he discussed the issue with developers. Mr. Dutton replied yes and noted a property at Andover Lake which is considering geothermal wells. Mr. Dutton added that he has clients on Clark Hill Road who will have 5 geothermal wells; Secretary McClain thought that is great.

Mr. Dutton explained that he encourages his clients to look at plans and house styles that they like. He also noted that he reviews different energy systems with his clients and how their parcels of land dictate different features.

Commissioner Davis inquired if the detention basin near the driveway would flow to the south. Mr. Dutton said that a large section of underdrain will control the water quality volume. He explained that the underdrain will take the water in through an orifice and it would take approximately 40 hours to drain out of the detention basin. Mr. Dutton noted that the underdrain is extra-long on purpose to prevent clogging. The water will flow out from the orifice and through the stone layers and will not clog. Mr. Dutton stated that not much water comes out of a 13/16-inch hole. He added that the system is durable.

Commissioner Davis inquired about the easement and asked if they are removing a driveway. Mr. Dutton said that they are not relocating any homes, adding that was a previously approved lot. Commissioner Davis inquired if the conservation easement that is being proposed crosses the driveway on lot 3. Mr. Dutton replied yes and noted that the land belongs to the Casella estate. He explained that the house is accessed by a common driveway, which was previously approved.

Commissioner Davis asked Mr. Mocko if there are any issues with the plan revisions to date, to which Mr. Mocko replied no.

Commissioner Shea inquired if the lot owners have responsibility for the shared infrastructure. Mr. Dutton said that homeowners will maintain the sewer system and the drainage system including the detention basin. Commissioner Shea inquired whether that responsibility is written in the individual deeds. Mr. Dutton responded yes, and added that a common driveway agreement specific to each lot would be included in the deeds.

Mr. Mocko informed the Commission that the Engineering Department mentioned the responsibilities of the individual owners within their recent memorandum and requested that those responsibilities be adequately noted in the deed.

Mr. Dutton declared that he will address the technical items within the memorandum from the Engineering Department and added that he will file the wetlands permit application next week. Chairman Harper asked Mr. Dutton how close he is to having a finalized report. Mr. Dutton said it should be done before the next meeting.

END of
Nov 12, 2020
minutes

November 6, 2020

MEMORANDUM

**INFORMAL DISCUSSION #1
MEETING OF 11-12-20**

To: Conservation Commission/Inland Wetlands and Watercourses Agency

From: Tom Mocko, Environmental Planner

Re: Proposed 3-lot Casella Subdivision – 1 frontage and 2 rear lots on 11.7 acres located east and south of the easternmost cul-de-sac of Knollwood Drive – Rural Residence Zone and Groundwater Protection Zone 2 – Dutton Associates, LLC – The Estate of Jon Casella (c/o Michael Pucci), landowner/applicant

LOCATION: Please refer to the location map appearing on the cover sheet on the submitted site plans.

PROPOSAL: To subdivide an 11.7-acre parcel into three residential lots (1 frontage and 2 rear lots) that are to be serviced by individual, on-site septic systems and wells. Access is provided from the cul-de-sac using a shared drive that splits to the proposed house sites. A private stormwater detention basin is also proposed to handle the stormwater runoff; it is located 230 feet south of the proposed house on lot 3, which is some 60 feet lower in elevation than the house; importantly the site development plans were revised to divert runoff from the eastern portion of lot 2 and channel creation downgradient of the proposed stormwater treatment basin. Private conservation easements are proposed on portions of all three lots.

REVIEW: Within your packet or to be uploaded onto the Town's website are revised plans (revised 10-02-2020) for review. Following this memorandum are: meeting minutes from the Commission's review on July 16, 2020; excerpts from the recently revised and submitted drainage report; review comments dated 11/4/20 addressed to Jim Dutton from the Engineering Department; and the staff memorandum to the Commission for the July 2020 meeting.

Importantly, the downgradient drainage concerns on the downhill private property (G. & P. Mick at 2335 Hebron Avenue) are much better addressed by a proposed diversion swale on lot 2 as shown on sheet 5 of 9 of the set of submitted plans. This is a rather simple approach to address the concerns of altering the off-site wetlands on the neighboring property that will receive discharges from the proposed detention basin/pond. The Engineering Department appears to endorse the diversion concept.

Now for a sheet by sheet review of the revised set of plans that includes 9 sheets:

- Sheet 1's "legend to plan symbols" needs to be expanded and otherwise revised to include the symbols used to represent slopes at or greater than 20 percent (darkened blotches used on sheets 4 & 5), and exposed bedrock/ledge at the land surface (a hatching pattern also on sheets 4 & 5). Also, there are two different symbols used for the proposed sediment barriers, in which the bolder symbol too closely resembles the symbol used for the proposed "edge of bituminous pavement"; let's make it obviously known where the sediment barriers are to be and not confuse them with the edges of pavement.
- Sheet 4 indicates: the existing topographic conditions and highlights the slopes at or greater than 20 percent (dark gray blotches); the bedrock at the land surface (alternating direction of a hatching bordered by a solid line); and the soil types found on the site (numbers and symbols or just a symbol), including the very small area of wetlands in the site's extreme southwest corner.
- Sheet 5 represents a combined site development plan and erosion control and sedimentation plan. First, I highly recommend a separate soil erosion and sedimentation control plan so as to unclutter this, otherwise, too busy plan. Note the "Diversion Swale" and its design on rear lot #2. The proposed conservation and private drainage easement areas are shown. An impervious coverage table is provided.
- Sheet 6 provides the test pit and percolation testing data that corresponds to their locations identified on sheet 5. This all pertains to the proposed septic systems that **yet needs to be fully reviewed and approved by the Health Department.**
- Sheet 7 includes various note and details. Importantly, the "**erosion control narrative**" appears here; **I will be meeting with the consultant to revise said narrative** in order to meaningfully improve the effectiveness of the soil erosion and sedimentation control plan for this project. The soil scientist's report of her wetland soils delineation is informative.
- Sheet 8 details the design of the proposed detention "pond" or basin.

In response to the "laundry list" created at the Commission's informal review of the remaining items to explore:

- It does not appear that any repositioning of proposed houses on lots 1 and 3 occurred in order to enhance their potential solar access;
- A more detailed drainage report and data was provided;
- The list of concerns previously given by the Engineering Department has been reduced, but not totally eliminated;
- The soil erosion and sediment control plans and narrative will continue to be improved upon;

- The Health Department has the current set of plans for their review; and
- The proposed conservation easement areas are clearly shown, along with the existing, abutting conservation easement areas.

Once the plans are further revised, a complete application for the wetlands permit is submitted, and nitrogen loading calculations are submitted, then this subdivision proposal will return for formal actions and recommendations by the Commission/Agency.

TM:gfm

*END of
Nov 6, 2020
staff report*

**GLASTONBURY CONSERVATION COMMISSION
(INLAND WETLANDS & WATERCOURSES AGENCY)
Portion of REGULAR MEETING OF MINUTES THURSDAY, JULY 16,
2020**

The Glastonbury Conservation Commission (Inlands Wetlands & Watercourses Agency), along with Mr. Tom Mocko, Environmental Planner, in attendance held a Regular Meeting *via ZOOM video conferencing*.

ROLL CALL

Commission Members-Present

Judy Harper, Chairman-
Dennis McInerney, Vice-Chairman
Kim McClain, Secretary
Frank Kaputa
William Shea
Mark Temple

Commission Members- Excused

Brian Davis

I. INFORMAL DISCUSSIONS

- 1. Proposed 3-lot Casella Subdivision – 1 frontage and 2 rear lots on 11.7 acres located east and south of the easternmost cul-de-sac of Knollwood Drive – Rural Residence Zone and Groundwater Protection Zone 2 – Dutton Associates, LLC – The Estate of Jon Casella (c/o Michael Pucci), landowner/applicant**

Mr. Jim Dutton, Dutton Associates, LLC, explained that the site for the 3-lot subdivision is on 11.7 acres located to the southeast of the Knollwood Drive cul-de-sac. He also stated that the lot is moderately steep, sloped, and the topography includes boulders and ledge. He also noted that there is a tiny corner of wetlands extending into the southwest portion of the property. Mr. Dutton presented a slide of the proposed and existing conservation easements on the site. He informed the Commissioners that the Estate of Jon Casella will donate the land to the south to the Town to create a park.

Mr. Dutton stated that there are some uranium issues and the Health Department will want to conduct testing. He also stated that he is not sure if the builder or buyer will drill the well ahead of time. Mr. Dutton explained that all lots will be accessed by a common driveway from Knollwood Drive. He also noted that the septic system area is code compliant. Mr. Dutton explained that the test pits had good results, but he does not have the data on him and would get the information from the Health Department.

Mr. Dutton explained that a drainage system will be located in the area of the common driveway and presented a stormwater summary and charts that show a reduction of the peak flow. He then

explained that they have addressed the concerns that Mr. Mocko brought up regarding the volume of the water and the impact. Mr. Dutton explained that the stormwater runoff flows from the northeast to the southeast and eventually ends up in Hebron Avenue. The water will be diverted to control the volume. Mr. Dutton stated that he has not completed the erosion and sedimentation plans and is waiting for input from the Commissioners.

Mr. Dutton explained that blasting is likely required at the site. He noted that only a couple of houses are nearby and they would send those properties a pre-blast survey. Mr. Dutton also stated that the Engineering Department had requested a few changes. He explained that one of the comments was to change the catch basin to a larger one. Mr. Dutton stated that the issues are minor and would be addressed. The presentation was concluded.

Commissioner Shea inquired who owns the property to the southwest. Mr. Dutton stated it is a wetland and intermittent watercourse system and George Nick owns it. Commissioner Shea asked for clarification on the peak flow and the increase in volume. Mr. Mocko explained that the extra volume changes the characteristics of within the flow line and the extended peak runoff rates cause erosion.

Mr. Dutton explained that the water will be released over a 40-hour period and will enter through the underdrain. He also added that it will not clog and the water will be filtered and drained.

Mr. Dutton also explained that they have done this many times and it works. Mr. Dutton then presented a watershed map. He explained that the blue lines are watersheds A and B. A is to the north and B, the larger one, is to the south. Mr. Dutton stated that both go into the wetlands and down to Hebron Avenue. Mr. Dutton presented another slide and stated the red lines indicate the post-development watershed located in the northeast corner. He explained that it bypasses the detention basin and added that it is the appropriate place to establish a diversion.

Vice-Chairman McInerney inquired if there is a tributary. Mr. Dutton stated that the area is broad and flat and flows through a "U" shaped watershed area and the water flows into a swale, comes out of a culvert and ends up in the detention pond. He then reiterated that the placement of the detention basin is where it needs to be. Commissioner Kaputa stated that he wanted to bring up the point that there will be changes to the characteristics of the post-development flow and runoff.

Vice-Chairman McInerney inquired how conducive the soil is for septic. Mr. Dutton stated that the issue was finding an area large enough with deep enough soil. He also explained that further to the north it gets tougher. Vice-Chairman McInerney commented that the land and topography are steep with shallow bedrock and exposed brownstone. Mr. Mocko brought up the point of uranium mitigation. Vice-Chairman McInerney requested data on the findings when it becomes available.

Commissioner Temple inquired if there was a requirement to put a pump system in the septic system. Mr. Dutton replied yes, with lot 2, and that they will use a 1,000 gallon pump chamber which is much larger than most other pump systems. He also explained there is an alarm to signal if it is not working. Mr. Dutton also explained that he recommends buying 2 pumps, it saves time in case one breaks. Commissioner Temple inquired what happens in a case of a

power outage. Mr. Dutton stated that wells will not work in power outages unless there is a backup generator.

Vice-Chairman McNerney inquired about solar panels. Mr. Dutton explained that one lot has good orientation for solar and the other 2 may need to be turned. Another option is placing the solar panels at the end of the house. He then stated that properties that have solar panels may have a lien placed on them. Mr. Dutton also explained that, from the perspective of the fire department, solar panels are safety hazards to firefighters.

Commissioner Temple asked Mr. Dutton to show all of watershed locations once more for clarification. Mr. Dutton presented the slide and stated that he has done a complete analysis. He then noted that if there was no detention pond, the water would wind up in the exact spot. Commissioner Temple asked Mr. Dutton if he would address Mr. Mocko's concern of erosion. Mr. Dutton stated that they reduced the peak and proposing to divert the excess volume. Vice-Chairman McNerney inquired how far away Roaring Brook is from the proposed subdivision. Mr. Dutton stated over 1/2 a mile.

Vice-Chairman McNerney inquired how they would prepare the lots for blasting and asked if there was any data. Mr. Dutton explained that on lot 3, there are giant stockpiles and it is expected to have a walk-out basement in the plans and also added that lots 1 and 2 will require more blasting than others. He also explained that he does not have final house plans but it will likely be a 2400 square foot plan. Mr. Dutton stated that the final plans are based on what people actually want and he is not sure exactly what will be blasted.

Commissioner Temple stated that it may be better to use an excavator instead of dynamite because the rocks are weathered and soft and it will keep costs down. Mr. Dutton stated that it is up to the homeowners and if they work with the existing topography it will save money.

Vice-Chairman McNerney inquired if the area was all septic and well and asked if there are any problems. Mr. Dutton stated that he is not is not aware of problems with the septic. He then explained that on Cedar Ridge Drive a well was running dry and they drilled another well a short distance away and it worked.

Commissioner Shea inquired if Mr. Mocko's comment, # 5 on the memo, regarding the runoff was addressed. Mr. Mocko stated that the diversion solves that concern. Vice-Chairman McNerney stated that they do not often divert runoff from one watershed to another. Mr. Mocko stated that the two sub-watersheds involved are very small and it is warranted here in this specific situation. Mr. Mocko also stated that he does not want the Town to approve something that may likely have adverse effects on neighboring properties. Mr. Dutton agreed with Mr. Mocko's point and stated that people will notice. He also stated that there is an easy and reasonable solution and where the diversion goes will not cause problems for residents. Mr. Mocko stated that the application is heading in the right direction and added that it is a practical solution for preventing adverse impacts.

Secretary McClain commented that it would make sense to test the wells before construction. Mr. Dutton stated that it would be his recommendation as well, but there are no laws requiring

this. Secretary McClain stated that it seems odd to build a house only to find out there is uranium. Commissioner Temple and a few other Commissioners stated that uranium can be mitigated. Mr. Mocko stated that he has confidence in the Health Department and they will do the right thing. Mr. Dutton stated that many wells have treatment systems for all sorts of things. He then mentioned that in his own house he has a treatment system for iron.

Chairman Harper wanted clarification on notifying the neighboring properties about the blasting. Mr. Dutton stated that 2 houses at the end of the cul-de-sac on Knollwood Drive would get a survey. Mr. Mocko added that it is the Fire Marshal's Office that establishes the specific distance for conducting pre-blast surveys based upon factors like geology.

Chairman Harper then inquired about the wells. Mr. Mocko explained that the wells are administered by the Health Department.

Chairman Harper asked if there were any members of the public who wanted to speak. No members of the public were electronically present.

Chairman Harper closed public comment on the application.

Chairman Harper and the Commission asked Mr. Dutton to complete the following:

- Position the lots for better solar orientation
- Detailed drainage report and data
- Fully address the Engineering Department's list of concerns
- Finish the erosion and sedimentation plan
- Final review of the proposed septic systems and wells from the Health Department
- More clarification on the area's existing and proposed conservation easements and a larger map for better viewing

Chairman Harper thanked Mr. Dutton for his presentation.

*EWD of excerpts from
July 16, 2020 minutes*