



CONSERVATION COMMISSION

P.O. BOX 236

ACTON, MASSACHUSETTS 01720

MINUTES
CONSERVATION COMMISSION MEETING
JANUARY 19, 1983

CALL TO ORDER: 8:00 p.m.

COMMISSIONERS PRESENT: Chairman, Cynthia E. Torkelsen; members, Brewster Conant, Judy Clark, Dana Sawyer, and Mary Donovan; Julie Lipton, Conservation Assistant.

OTHERS PRESENT: Bob and Bill McGinnes of McGinnes Engineering; Bela Nagy of Lot 8 Olde Barn Way, David E. Vargor for Lot 8 Olde Barn Way, Charles A. Perkins, Co.; John Whittier, interested citizen; Jack Dunphy, Engineer for Nagog Knoll Realty.

ITEM 1: Correspondence

The Commission reviewed the correspondence in the packets.

ITEM 2: Nagog Knoll Realty (85-111) Public Hearing

Chairman Cynthia Torkelsen began the Hearing held under Chapter 131, Section 40 of the State Wetland Protection Act and the Town Wetland Bylaw. Jack Dunphy explained the proposal to the Commission. He said that the proposal is to build an addition to small stores and a 900 square foot addition to Triple A. He said that water from the rear of the building additions will be collected in leaching basins and perforated pipes. One area is steep so water will rush through the pipe rather than entering the ground. Excess run-off and roof drainage will be discharged into the proposed recharge basin. Mr. Dunphy said that hydrographs were prepared showing the water collected and the credit at the leaching basin. He added that the basin has the capacity to store water generated from a 100 year storm. The Hud Flood elevation is higher than this set flood elevation. The crest, is located at the end of the basin and allows water to flow out of the basin at elevation 145. Mr. Dunphy said that the basin could store 23,000 cubic feet of water. Since some clogging will take place in pipes, and Mr. Gould requested a "no fail" system, the drainage system was over designed.

Mr. Dunphy added that crushed stone is shown in the retention basin, however he would prefer to use gravel because it is easier to clean. The engineering office is requiring crushed stone. He also said that he believed the groundwater to be at about 3 feet to 3 1/2 feet below the surface elevation and the wetland line is 141.6, the same elevation as the floodplain.

Mr. Dunphy said that a maintenance plan for the retention basin will be covered by the Engineering Department in a maintenance plan required by the Selectmen. The plan is to allow the Engineering Department to be the judge of when maintenance is required. Apparently the D.P.W. Building has cleaning equipment and that this will be rented to the applicant for maintenance purposes. Snow will be dumped along the back (west) between island. No salt would be used.

Mr. Dunphy then described the sequence of construction. He said that first utilities will be removed and replaced. Second, sanitary facilities for stores would be put in. Third, the addition would be put in, fourth, drainage system and retention basin would be installed.

He added that the retention area would be partially excavated because the material can be used on site. He said that mixed seed (slope grass) would be used on the slopes of the basin because it grows on 2:1 bankings, does not require cutting, thrives, and allows water penetration. Mr. Whittier asked Jack about the curve on Brook Street. He said that it is so sharp that one must wait until the other car pulls in before turning and it should be fixed.

Mr. Whittier also asked what will happen to water coming off parking area towards the railroad track. Jack answered that there is a swale at that location and no flooding would be caused downstream.

Dana Sawyer then said that there are 275,000 feet of coverage and that a 1" rain on 275,000 is equal to the capacity of the basin. He added that the only margin appears to be permeability. Based on this observation he asked if the storage capacity of the basin is adequate.

Mr. Dunphy answered that water would also be stored in pipe lines and leaching basins and that the design tries to artificially slow water in the pipes so as to get as much leaching as possible. He also said that the front part of the lot does not drain into the back portion.

Mr. Whittier asked under what conditions would water flow through the pipe near the railroad tracks, and was concerned about water going into the pond. Jack answered that the entire basin would have to overflow. A situation like the winter of 1978, where the base of the basin would freeze and the leaching capacity would not function.

Mr. Dunphy added that in reference to the culvert near the railroad track he said there was not free flow because vegetation etc., is blocking it and water backs up and is slowly released. He said it is better not to clean the basin out.

Jack then mentioned that the Diagles sold Mr. Gould a 10,000 square foot area of land but retained his right to drain through the property. Since there were no further questions, the hearing was closed.

ITEM 3: Public Hearing - Olde Barn Way (Lot 8)
Continued from January 5, 1983 meeting

Cynthia Torkelsen said that the Public Hearing is being continued from last meeting of January 5, 1983.

Mr. McGinnes said that the proposed bridge would be a simple bridge with steel construction, wood handrail and son-o-tube footings. The driveway would be gravel. The bridge would hold 12-15 tons which is sturdy enough to hold a fire truck or concrete truck. Mary Donovan asked what type of excavation would be required. Mr. McGinnes said that they would drill four holes on each side of the water with a boring tool. The amount of subsoil removed would be minimal and it would be placed at the retaining wall.

Mary Donovan asked how the equipment would be positioned. Mr. McGinnes answered that the hand-boring tool would be used. He said that the procedure is to excavate or level the area at the driveway and that the brook work would be built first. The holes would be put in by hand and that they would wheelbarrow concrete into the son-o-tubes. The work limits would be the width of the drive. When the concrete is set, both sides of the embankments in place, pre-assembled steel would be welded. He added that a tarp would be hung beneath the bridge so that no scale would get into the brook. Mr. McGinnes said that a crane would back up and that beams and bolts would be set in place. He said everything would be done ahead of time. The retaining wall is made of railroad ties and is placed to contain the work limits. He said some fill would have to be brought in, and that all the information is on the plan.

Cynthia Torkelsen asked what the impact of the bridge would be during flooding. Mr. Vargor answered that they looked at a 15' clear span and that covered a 100 year flood with a 2.6 per second velocity. The proposed bridge span is 20'. Mr. McGinnes said that the bridge is overdesigned, but that they had re-cycled steel available and that aesthetically the bridge would look good. He added that stones and boulders would be used to decorate the area.

There were no further questions, the hearing was closed.

ITEM 4: The following site plans were assigned to Mary Donovan for review.

- # 12/17/82-227 River Road Real Estate
- # 12/23/82-228 Joseph Sullivan

Judy Clark was asked to review the Army Corps of Engineers proposed general permit.

ITEM 5: Minutes

The Conservation Commission approved the minutes dated August 18, 1982, October 20, 1982 and November 17, 1982.

ITEM 6: Great Hill Conservation Land, reported hardwood cutting of live trees.

The assistant informed the Commission that she received reports of tree cutting on Great Hill Conservation land from an abutter (Mrs. McDonald). The assistant inspected the area off of Piper Road and found an area of large hardwood trees which had been cut. The assistant asked Mrs. McDonald to try to get a license plate number and to call the Commission if she observes future activity.

ITEM 7: Request to use volunteer for Conservation office

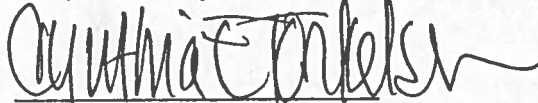
The assistant said that Karen Howe, a hydrology major and student of technical writing is interested in working for the Commission. It was suggested that Ms. Howe could work on land management and the groundwater study.

ITEM 8: The Commission approved the following payments:

\$8.00 - Beacon Minuteman Corp.
\$5.00 - Julie Lipton for Attendance at M.A.C.C. Conference.

MEETING ADJOURNED: 11:10 p.m.

Respectfully submitted



Cynthia E. Torkelsen,
Chairman

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